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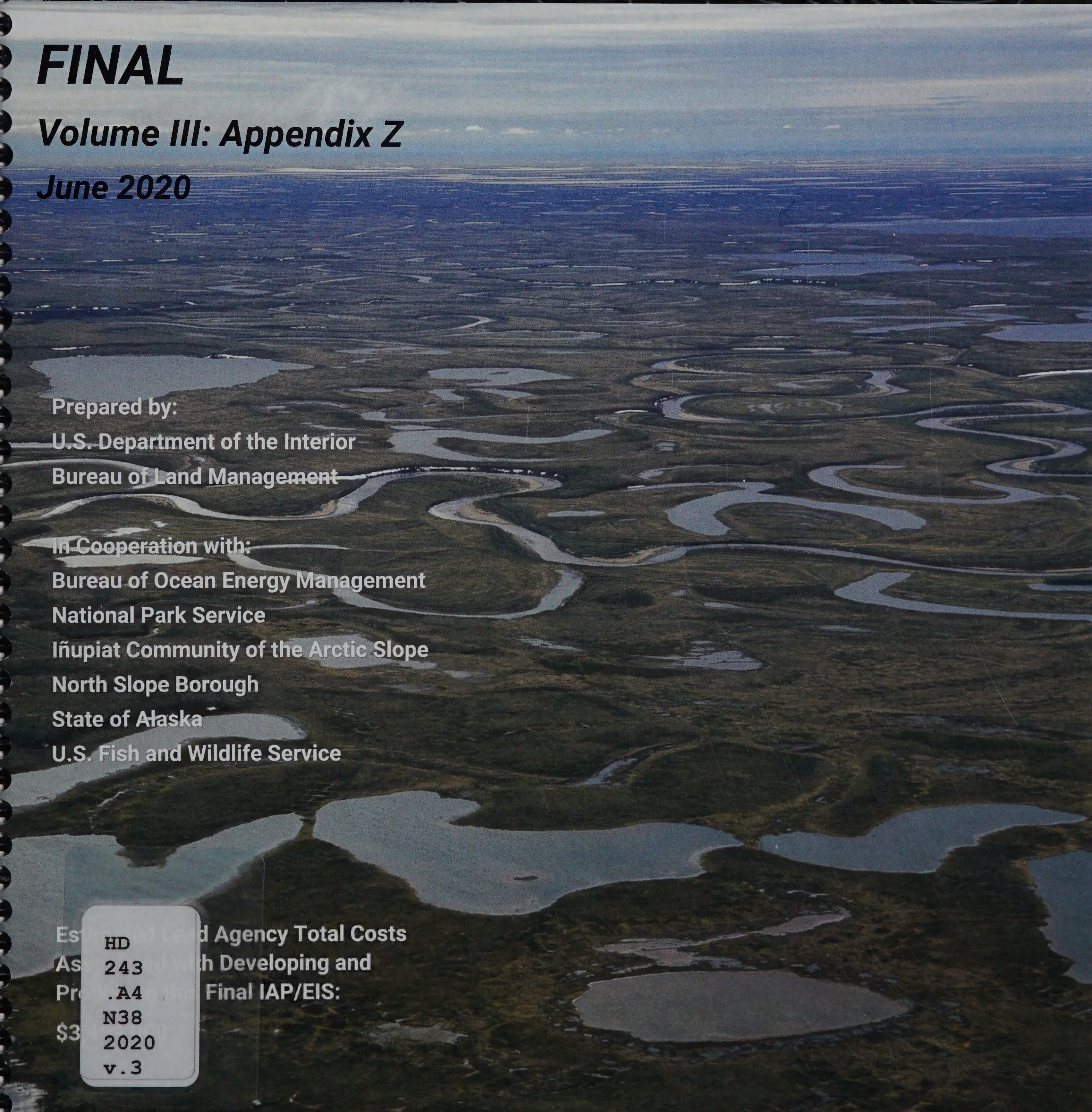
Integrated Activity Plan and Environmental Impact Statement



FINAL

Volume III: Appendix Z

June 2020

Prepared by:
U.S. Department of the Interior
Bureau of Land Management

In Cooperation with:
Bureau of Ocean Energy Management
National Park Service
Iñupiat Community of the Arctic Slope
North Slope Borough
State of Alaska
U.S. Fish and Wildlife Service

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Pr[illegible] [illegible] Final IAP/EIS:

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Mission

To sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

Cover Photo: Northeast National Petroleum Reserve in Alaska.
Photo by Bob Wick (BLM).

DOI-BLM-AK-R000-2019-0001-EIS

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National Petroleum Reserve in Alaska

Integrated Activity Plan and Environmental Impact Statement

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Prepared by:
U.S. Department of the Interior
Bureau of Land Management

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Estimated Lead Agency Total Costs Associated with Developing and Producing this Final IAP/EIS:

$3,489,000

Appendix Z

Public Comments and BLM Responses

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Appendix Z. Public Comments and BLM Responses

This appendix presents comments the Bureau of Land Management (BLM) received on the National Petroleum Reserve in Alaska (NPR-A) Draft Integrated Activity Plan/Environmental Impact Statement (IAP/EIS). It also includes a description of the public comment process, how the BLM considered all comments, and responses to all substantive comments.

Z.1 DRAFT LEASING EIS COMMENT PROCESS

The National Environmental Policy Act (NEPA) requires that all substantive comments received before reaching a decision must be considered to the extent feasible, and that agencies must respond to all substantive written comments submitted during the public comment period for an IAP/EIS (40 Code of Federal Regulations 1503.4). Comments must be in writing (including paper or electronic format or a court reporter's transcript taken at a formal public meeting or hearing), substantive, and timely, in order to merit a written response.

Although the BLM diligently considered each comment letter, the comment analysis process involved determining if a comment was substantive or non-substantive. In performing this analysis, the BLM relied on Section 6.9.2, Comments, in the BLM NEPA Handbook H-1790-1 to determine what constituted a substantive comment.

A substantive comment does one or more of the following:

- Questions, with a reasonable basis, the accuracy of the information or analysis in the IAP/EIS
- Questions, with a reasonable basis, the adequacy of the information or analysis in the IAP/EIS
- Presents reasonable alternatives other than those in the Draft IAP/EIS that meet the purpose of and need for the proposed action and addresses significant issues
- Questions, with a reasonable basis, the merits of an alternative or alternatives
- Causes changes in or revisions to the proposed action
- Questions, with a reasonable basis, the adequacy of the planning process itself

Additionally, the BLM's NEPA handbook identifies the following types of substantive comments:

- Comments on the Adequacy of the Analysis—Comments that express a professional disagreement with the conclusions of the analysis or assert that the analysis is inadequate are considered substantive; they may or may not lead to changes in the Final IAP/EIS. Interpretations of analyses should be based on professional expertise. Where there is disagreement within a professional discipline, a careful review of the various interpretations is warranted. In some cases, public comments may necessitate a reevaluation of analytical conclusions. If, after reevaluation, the BLM Authorized Officer responsible for preparing the EIS does not think that a change is warranted, the response should provide the rationale for that conclusion.
- Comments That Identify New Impacts, Alternatives, or Mitigation Measures—Public comments on a Draft EIS that identify impacts, alternatives, or mitigation measures that the draft did not address are considered substantive. This type of comment requires the BLM Authorized Officer to

determine if it warrants further consideration; if so, he or she must determine if the new impacts, new alternatives, or new mitigation measures should be analyzed in the Final IAP/EIS, in a supplement to the Draft EIS, or in a completely revised and recirculated Draft EIS.

- Disagreements with Significance Determinations—Comments that directly or indirectly question, with a reasonable basis, determinations on the significance or severity of impacts are considered substantive. A reevaluation of these determinations may be warranted and may lead to changes in the Final IAP/EIS. If, after reevaluation, the BLM Authorized Officer does not think that a change is warranted, the BLM's response should provide the rationale for that conclusion.

Comments that failed to meet the above description were considered non-substantive.

After publishing the Draft IAP/EIS on November 25, 2019 in the *Federal Register*, the initial 60-day public comment period to receive comments on the Draft IAP/EIS was extended by an additional 15 days. After this extension, the public comment period officially ended on February 05, 2020. The BLM received written comments by mail, fax, email, the online comment form via ePlanning, and handwritten and verbal testimony at public meetings.

The BLM held public meetings during the comment period in North Slope communities, Anchorage, and Fairbanks. Pursuant to ANILCA Section 810(a)(1) and (2), the BLM also conducted a hearing in each of the North Slope communities to gather comments regarding potential impacts on subsistence use resulting from the alternatives considered in the Draft IAP/EIS. In order to capture all relevant comments, court reporters were made available in all meeting locations for attendees to provide verbal testimony if they desired. A list of the meetings and meeting dates are provided below.

- December 10, 2019: Point Lay
- December 11, 2019: Anchorage
- December 16, 2019: Utqiagvik
- December 17, 2019: Atqasuk
- December 18, 2019: Fairbanks
- January 08, 2020: Nuiqsut
- January 14, 2020: Wainwright
- January 15, 2020: Anaktuvuk Pass

Comments received covered a wide spectrum of thoughts, opinions, ideas, and concerns. The BLM recognizes that commenters invested considerable time and effort to submit comments on the Draft IAP/EIS. The agency developed a comment analysis method to ensure that all comments were considered, as directed by NEPA regulations. This systematic process ensured the BLM tracked and considered all substantive comments.

On receipt, each comment letter was assigned an identification number and logged into a database that allowed the BLM to organize, categorize, and respond. The BLM coded substantive comments from each letter to appropriate categories, based on content, and the link to the commenter was retained. The categories generally follow the sections presented in the Draft IAP/EIS, though some related to the planning process or editorial concerns.

The BLM grouped comments similar to each other together and prepared one response for each group of similar comments. The responses were crafted to respond to the comments and to note if a change to the IAP/EIS was warranted.

The BLM received a total of 82,791 comment letter submissions; 294 of these were considered unique submissions, and 82,497 were part of form letter campaigns (discussed further, below, in **Section S.1.1**). Many comments received throughout the comment analysis process expressed personal opinions or preferences, had little relevance to the adequacy or accuracy of the Draft IAP/EIS, or represented commentary on management actions that are outside the scope of the IAP/EIS. These commenters did not provide specific information to assist the BLM in making a change to the existing action alternatives, did not suggest new alternatives, and did not take issue with methods used in the Draft IAP/EIS; the BLM did not address these comments further in this document.

The BLM read, analyzed, and considered all comments of a personal or philosophical nature and all opinions, feelings, and preferences for one element or one alternative over another. Because such comments were not substantive, the BLM did not respond to them. It is also important to note that, while the BLM reviewed and considered all comments, none were counted as votes. The NEPA public comment period is neither an election nor does it result in a representative sampling of the population. Therefore, public comments are not appropriate to be used as a democratic decision-making tool or as a scientific sampling mechanism.

Subject matter experts reviewed comments that recommended additional studies, data, or scientific literature to be incorporated into the analysis; new information and citations were incorporated into the Final IAP/EIS as appropriate. Comments citing editorial changes to the document were reviewed and incorporated. The Final IAP/EIS has been technically edited and revised to fix typos, missing references, definitions, and acronyms and provides other clarifications as needed.

Z.1.1 Letter Campaigns

Several organizations and groups held standardized letter campaigns to submit comments during the public comment period for the Draft IAP/EIS. Through this process, their constituents were able to submit the standard letter or a modified version of the letter indicating support for the group's position on the BLM management actions. Individuals who submitted a modified standard letter generally added new comments or information to the letter or edited it to reflect their main concerns. The BLM received 82,497 form letter campaign letters, most of which were identical to the master letter. Modified letters with unique substantive comments were given their own submission number and were coded appropriately.

Z.2 HOW TO READ THIS VOLUME

The BLM assigned a letter number to every unique communication received during the Draft IAP/EIS public comment period. The following tables contain all substantive comments with the BLM's responses; they are organized by the category that comments regarded. Commenter names and applicable organization or agency are provided for letter submissions that did not request that their information be withheld. Complete transcripts of public meetings and copies of all substantive comment letters are available on the BLM's project ePlanning website, which can be accessed through: https://www.blm.gov/planning-and-nepa/plans-in-development/alaska/npr-a-iap-eis.

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Z.3 SUBSTANTIVE PUBLIC COMMENTS AND BLM RESPONSES

Z.3.1 Acoustic Environment

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	65	Acoustic Environment	3-25 N/A Noise from Aircraft This section should indicate that studies requiring helicopter use are mainly BLM- or permit/agency-required studies. The statement, "...surveys in June to look for caribou and birds before ice road construction can begin" is incorrect. June and July ice road surveys are conducted for stick picking (picking up windborn debris on the tundra) and scouting routes for new ice roads.	The Final IAP/EIS was updated.

Z.3.2 Air Quality

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	81	Air Quality	Page #: H-47 Table or figure: H-27 Reviewer Name/Agency: ADEC Comment: Paragraph one and two, as well as Table H-27 notes that Noatak and Nuiqsut are within the critical load range for nitrogen and sulfur deposition. The text explains why Noatak values are within the critical load range but does not discuss the reason for Nuiqsut values falling within the critical load range. Suggestion if applicable: Please explain.	The critical loads of atmospheric deposition are applicable to the three federally managed areas shown in the DRAFT IAP/EIS Table H-27 - the Gates of the Arctic National Park, the Noatak National Preserve, and Arctic National Wildlife Refuge. Therefore, although deposition values are presented at the City of Nuiqsut for reference, they are not appropriate for comparison with the critical loads and hence are not discussed in the text.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	88	Air Quality	The air quality modeling analysis presented in the DEIS for the NPR-A IAP is incomplete and fails to ensure that no significant adverse impacts on air quality would occur. Further, the air quality analysis relies on the Willow Master Development Plan (MDP) DEIS, which is deficient and likely underestimates impacts. We have attached the expert comments we submitted on the Willow MDP EIS for reference. As a result, it is likely that air quality impacts for the NPR-A IAP would be more extensive than what is presented in the DEIS. In addition, all of the alternatives fall short of establishing enforceable mitigation measures that reflect assumptions that were made in the analysis and that will ensure that no significant air quality impacts will occur.	In the Air Quality sections (3.2.2 and Appendix H) of the IAP/EIS, the BLM had demonstrated that no significant adverse impacts would occur by analyzing impacts on air quality from a future large hypothetical project in the NPR-A along with cumulative sources and showing that impacts would be below ambient air quality standards and health-based thresholds. The BLM addresses response to the Willow MDP DEIS comments as part of the Willow EIS Process. The ROPs under each alternative (Table 2-2 of IAP/EIS) describe the protective measures that the BLM would require of applicants during the permitting process. Among these is ROP A-10, which discusses mitigation measures for air quality. The ROP provides varying levels of mitigation, depending on alternative. Any applicant requesting authorization for an activity from the BLM would have to address the applicable ROPs.
Donahey	Leah	Alaska Wilderness League	29320	89	Air Quality	BLM relies on previous modeling for the Willow Master Development Plan project (BLM Willow MDP DEIS, 2019) to assess air quality impacts for the NPR-A IAP. The proposed Willow project includes five drill pads, a central processing facility, airstrip, gravel mine, gravel roads, pipeline, and other features.622 In the DEIS for the NPR-A IAP BLM states that, “the nearfield impacts from individual future developments in the NPR-A are expected to be comparable to or less than impacts from the Willow project, and the Willow EIS near-field analysis results are used as a	The BLM used the near-field air quality modeling conducted for the Willow MDP Draft EIS to represent a hypothetical future development in the NPR-A. Although the Willow proposal has changed from what was analyzed in the Willow Draft EIS, the IAP/EIS is not analyzing impacts from the Willow project. The IAP/EIS is analyzing impacts from a hypothetical future development, and the old Willow proposal is still representative of a potential development in the NPR-A. Any new development in the NPR-A will have phased construction in support of delineation and development drilling leading to production.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	89 *(cont.)*	*(see above)*	surrogate for the near-field analysis for the NPR-A IAP."623 BLM, in both the DEIS and the Air Quality Appendix (H), describes how emissions were scaled to represent each Alternative (A, B, C, D) - and each Alternative development scenario (low, medium, high) - in the NPR-A IAP based on daily peak oil production.624 These scaled emissions are presented in Appendix H (Section H.3 Tables H-21 - H-24). However, the NPR-A IAP DEIS does not include the results of any air quality modeling of the impact of these scaled emissions for Alternatives A (low, medium, high), B (low, medium, high), C (low, medium, high), or D (low, medium, high). Rather, the DEIS presents "Maximum Near-Field Impacts for a Representative Development in the NPR-A and Comparison to Ambient Air Quality Standards" (DEIS Table 3-3), which appear to be the modeled impacts from Alternative B (Proponent's Project) of the Willow MDP DEIS.625 --------- 622 The Willow MDP DEIS also describes the potential for two additional satellite pads in the future. These pads developments are called Greater Willow One (GW1) and Greater Willow Two (GW2). 623 1 DEIS at 3-11 (noting "[t]he Willow project also includes a gravel island, which is representative of a gravel island that would occur under the IAP alternatives"). 624 See 1 DEIS at 3-14; 2 DEIS at app'x H at H-24. 625 BLM announced it is drafting a supplemental EIS to consider a new "proposed action" for the Willow	Infrastructure may consist of an airstrip and multiple satellite pads that are connected by infield roads and pipelines to a central processing facility. A single, larger diameter pipeline will lead from the central processing facility to market. Operations will be dependent on a gravel source, construction materials, oversized modules and transportation to the project location. Willow, with five production pads, each containing up to 50 wells, is therefore a conservative estimate of potential future developments that could be authorized under the new IAP. The BLM has also presented detailed air quality modeling results in the "far-field." The analysis area for the far-field modeling is the entire NPR-A and the estimated oil production in the NPR-A in the different RFD scenarios and alternatives were used to estimate emissions by using the emissions and production estimates from Willow. The alternative/scenario combination with the highest oil production and emissions (namely Alternative D, high development scenario) was modeled using CAMx to provide a conservative (i.e., protective of the environment) measure of air quality impacts. To add clarity, the Final IAP/EIS has updated the last sentence above to the end of Section H.2.1.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	89 *(cont.)*	*(see above)*	MDP EIS by the project proponent. BLM should clarify how such adjustments to the project will be incorporated or scaled into its air quality modeling for this EIS and the Willow MDP EIS.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	90	Air Quality	The near-field modeled impacts presented in the NPR-A IAP DEIS, that are based on Alternative B of the Willow MDP DEIS, do not account for concurrent construction, drilling, and operation activities and therefore underestimate potential air quality impacts. The NPR-A IAP DEIS and Willow MDP DEIS present separate modeling scenarios for construction, pre-drilling, development drilling, and routine operations.632 The DEIS - in both the Willow and NPR-A IAP analyses - then present the corresponding impacts from these scenarios, as if they occur in isolation, when in reality construction, drilling, and routine operations will likely occur simultaneously during many years of development. And in fact, according to the Willow MDP DEIS Air Quality Technical Support Document (AQTSD), emissions from construction, drilling, and operations will occur concurrently in years 2021 through 2032.633 ---------- 632 See I DEIS at 3-1 2, table 3-3; Willow DEIS AQTSD Section 3.3.1. 633 Willow DEIS at 22-24, table 2.1-4,5,6 (note, in 2021 no drilling emissions occur).	The BLM selected the modeling scenarios for the Willow MDP Draft EIS in consultation with air quality specialists at key cooperating agencies and after careful consideration of emissions and spatial and temporal variations to capture high impacts. Construction was modeled for the maximum year of emissions because there is construction activity in different locations in different years. The near-field modeling impact analysis for the Draft EIS also includes a developmental drilling scenario, which includes concurrent drilling and operations. The purpose for modeling the other individual scenarios was to assess any other high spatial impacts that may not show up in the other scenarios. The pre-drilling scenario was modeled separately, as it assesses effects before highline power becomes available. The BLM also notes that a project-specific, near-field NEPA analysis would be required for any development (individual project) to be authorized in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	97	Air Quality	The NPR-A IAP DEIS must include a more comprehensive and consistent set of required, measurable, and enforceable mitigations to ensure there will be no significant impacts to air quality from further development in the NPR-A. A diligent approach to future development in the area is critical given the significant air quality concerns in potentially impacted communities, such as Nuiqsut. To minimize NOx emissions, BLM should focus on controls and optimization of central processing sources (e.g., combustion sources, tanks, etc.), power generation sources, and drilling and construction engines. BLM should require add-on controls to minimize NOx emissions from engines, where feasible, in order to achieve the strictest NOx emission rates possible, based on engine size. To minimize PM10 emissions, BLM should focus on central processing sources and on minimizing emissions from vehicle traffic (e.g., production/operations traffic, drilling and completion traffic, construction traffic). BLM should also focus on minimizing emissions of PM2.5 and PM10 from drilling. BLM should require the use of dust suppression practices on all unpaved roads and should explore the use of Tier 4 engine technology that includes a diesel particulate filter (DPF). Other reasonable alternatives to reduce PM emissions that BLM should consider include reducing the pace and intensity of future projects and using remote monitoring systems to	The ROPs under each alternative (Table 2-2 of IAP/EIS) describe the protective measures that the BLM would require of applicants during the permitting process. Among these is ROP A-10, which discusses mitigation measures for air quality. The ROP provides varying levels of mitigation, depending on alternative. Any applicant requesting authorization for an activity from the BLM would have to address the applicable ROPs.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	97 *(cont.)*	*(see above)*	reduce the extent of on-site inspections and associated mobile source emissions. To minimize VOC emissions, BLM should focus on minimizing fugitive leaks. Equipment leak detection and repair programs across all segments of development (i.e., processing, production, transmission and storage) can be cost-effective and significantly reduce VOC and methane emissions. Leak detection and repair (LDAR) programs are vital to addressing fugitive emissions from oil and gas sources. EPA's technical analysis for its 2016 NSPS for the oil and natural gas industry estimated the following potential emissions reductions from LDAR programs: 40 percent reduction in emissions for annual monitoring; 60 percent reduction in emissions for semiannual monitoring; and 80 percent reduction in emissions for quarterly monitoring programs.678 BLM should require leak detection and repair at gas production, processing, and transport sources in the NPR-A. ------- 678 See EPA Background Technical Support Document for its May 2016 Final NSPS 40 CFR Part 60, subpart at 41.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	91	Air Quality	And for PM2.5 and NOx impacts, BLM has disaggregated impacts even further. The highest PM2.5s and NOx impacts under Willow Alternative B, as presented in the NPR-A IAP DEIS, occur as a result of developmental drilling activities, which BLM predicts will be at 91 % (NOx) and 70% (PM2.5) of the NAAQS. Drilling activities under Alternative B of the Willow MDP DEIS - for both developmental drilling and pre-drilling activities - are 115.2 (NOx) and 15.4 (PM2.5) tons in the year with the highest emissions (2026) .638 Yet, total NOx and PM2.5 emissions in that same year (2026) - from construction, drilling, and operations activities combined - are 856.7 (NOx) and 109.3 (PM2.5) tons.639 BLM's analysis does not model the impacts of these combined emissions and does not even model the combined impacts of emissions from both developmental drilling and pre-drilling activities. ---------- 638 Willow DEIS AQTSD at 23, table 2. 1-5. 639 Willow DEIS AQTSD at 25, table 2. 1-7.	The BLM selected the modeling scenarios for the Willow MDP Draft EIS in consultation with air quality specialists at key cooperating agencies and after careful consideration of emissions and spatial and temporal variations to capture high impacts. Construction was modeled for the maximum year of emissions because there is construction activity in different locations in different years. The near-field modeling impact analysis for the Draft EIS also includes a developmental drilling scenario that includes concurrent drilling and operations. The purpose for modeling the other individual scenarios was to assess any other high spatial impacts that may not show up in the other scenarios. The pre-drilling scenario was modeled separately, as it assesses effects before highline power becomes available. The BLM also notes that a project-specific, near-field NEPA analysis would be required for any development (individual project) to be authorized in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	92	Air Quality	The magnitude of the impacts from combined emissions from construction, drilling, and operations activities cannot be known without a modeling analysis to determine ambient air concentrations. Depending on where and when emissions occur from the various development activities it is possible that resulting impacts would exceed the NAAQS, especially when considering the l-hour average NAAQS for NO” and 24-hour average NAAQS for PM1O and PM2.5. And beyond the impacts from the representative future development project presented in the NPR-A IAP DEIS, BLM has failed to consider how current and future exploration activities (e.g., ice road construction and maintenance, seismic activity, exploratory drilling, etc.) impact air quality.	The BLM selected the modeling scenarios for the Willow MDP Draft EIS in consultation with air quality specialists at key cooperating agencies and after careful consideration of emissions and spatial and temporal variations to capture high impacts. Construction was modeled for the maximum year of emissions, because there is construction activity in different locations in different years. The near-field modeling impact analysis for the Draft EIS also includes a developmental drilling scenario, which includes concurrent drilling and operations. The purpose for modeling the other individual scenarios was to assess any other high spatial impacts that may not show up in the other scenarios. The pre-drilling scenario was modeled separately, as it assesses effects before highline power becomes available. The BLM also notes that a project-specific, near-field NEPA analysis would be required for any development (individual project) to be authorized in the NPR-A. In addition, ice road construction was included in the air quality modeling. The other exploration activities mentioned would also affect air quality but likely would have a smaller effect. The Final IAP/EIS has been updated to include this note to Section 3.2.2 in subsection Direct and Indirect Impacts - Activities Not Associated with NPR-A Oil and Gas Exploration and Development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Monsell	Kristen	Center For Biological Diversity	27356	8	Air Quality	The Draft EIS fails to properly disclose and analyze the direct, indirect, and cumulative impacts to air quality from fracking. Such failures render BLM's analysis arbitrary and unlawful. A growing body of scientific research has documented adverse public health impacts from these practices, including studies showing air pollutants at levels associated with reproductive and developmental harms and the increased risk of morbidity and mortality.311 A comprehensive review of the risks and harms of fracking to public health came to several key findings related to air pollution: (1) “drilling and fracking contribute to toxic air pollution and ground-level ozone at levels known to have health impacts,” (2)”public health problems associated with drilling and fracking, include poor birth outcomes, reproductive and respiratory impacts, and cancer risks”; and (3)”fracking infrastructure poses serious potential exposure risks to those living near it.”312 311 Hays, Jake& Seth B.C.Shonkoff , Towards an Understandingofthe Environmentaland Public Health Impacts of UnconventionalNaturalGas Development:A Categorical Assessment of the Peer-Reviewed Scientific Literature, 11 PLoS ONE e0154164 (2016); Shonkoff, Seth B.C. et al., Environmental Public Health Dimensions of Shale and TightGas Development, 122Environmental Health Perspectives 787(2014); Webb,	The BLM has presented detailed air quality analysis results in the near-field (within 31 miles) of a future example project, as well as regionally across the entire NPR-A, both of which include emissions from hydraulic fracturing and other sources. For the near-field analysis, the air quality analysis results from the Willow MDP DEIS (which is a large proposed development in the NPR-A) were used to provide an estimate of near-field air quality impacts from a future individual project and nearby cumulative sources in the NPR-A since detailed information is currently not available on such future projects. Note that hydraulic stimulation would only occur in the initial stage of drilling to stimulate flow at the production wells and would not be used for continued production during the life of the well. Oil formations in the NPR-A are conventional sandstone formation and do not require continuous hydraulic fracturing like unconventional shale formations in the contiguous United States. For the regional air analysis, photochemical air quality modeling was performed with CAMx for the alternative/scenario combination with the highest oil production and emissions (namely Alternative D, High Development scenario) and other cumulative sources to provide a conservative measure of air quality impacts. In the Air Quality sections (3.2.2 and Appendix H) of the IAP/EIS, the BLM had demonstrated that no significant adverse impacts would occur by showing that impacts would be below ambient air quality standards and health-based thresholds at a community (e.g., Nuiqsut) near a large

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	Ellenet a Developmental and reproductive effects of chemicals associatedwithunconventional oil and natural gas operations, 29 Rev Environ Health 307 (2014); McKenzie, Lisa M. et al., Human Health Risk Assessment of Air Emissions From Development of UnconventionalNaturalGas Resources, 424Science of the Total Environment79 (2012);Clean Air Task Force, Fossil Fumes: A Public Health Analysis of Toxic Air Pollution From the Oil and Gas Industry, June 2016, available at http://www.catf.us/resources/publications/files/FossilFumes.pdf. 312 Physicians for Social Responsibility and Concerned Health Professionals of NY, Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking, Sixth Edition, June 2019 ("PSR 2019") available at https://concernedhealthny.org/wp-content/uploads/2019/06/Fracking-Science-Compendium_6.pdf.	proposed project (e.g., Willow). A project-specific NEPA health analysis that includes the effect of hydraulic fracturing if used would be required for any development (individual project) to be authorized in the NPR-A.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	52	Air Quality	Appendix H does contain some important information on estimated air quality/emissions, but not all of it is useful or quite correct. Some of the AAAQS data (e.g., CO, NO2, SO2) in Table H-1, for example, is presented in different units (micrograms/cubic meter) when compared to the NAAQS (parts/million or parts/billion), which makes direct comparison of the standards impossible. Page H-40 lists projects that were included in the cumulative air impacts modeling. Nanushuk Drill Site 1 is not included (unless it is intended to be included in the Nanushuk "Pad", but this should be clarified). These sites have also been re-named and Liberty is also no longer a BP project, suggesting this list needs to be updated generally. Liberty seems to have been omitted from Figure H-13 as well. Are all the correct projects included in the analysis? Finally, Kuukpik would like additional information regarding Table H-27's conclusion that Nuiqsut will be within the critical load range for Nitrogen and Sulfur deposition. How was this conclusion reached and what does it mean for the people of Nuiqsut who are so concerned about air quality and increasing emissions?	The AAAQS and NAAQS are fundamentally in different units in their original form and hence are presented in those units. The list of RFD sources was decided by BLM, in consultation with air quality specialists at key cooperating agencies based on information available at the time the air quality analysis was performed. The Final IAP/EIS has been updated to revise Section H.6 to indicate that Liberty is no longer a BP project and added Liberty to Figure H-13. The critical loads of atmospheric deposition are applicable to the three federally managed areas—the Gates of the Arctic National Park, the Noatak National Preserve, and the Arctic National Wildlife Refuge. Therefore, although deposition values are presented at Nuiqsut (and Atqasuk and Utqiagvik) for reference, they are not appropriate for comparison with the critical loads. The Final IAP/EIS has been updated to revise Draft IAP/EIS Table H-27 (H-28 in the Final IAP/EIS), accordingly, to remove the terms *below*, *within*, and *below* for Atqasuk, Nuiqsut and Utqiagvik, respectively, and were replaced with N/A. In the Air Quality sections (3.2.2 and Appendix H) of the IAP/EIS, the BLM had shown, based on the Willow MDP EIS, that no significant adverse impacts would occur at Nuiqsut by showing that impacts would be below ambient air quality standards and health-based thresholds.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	23	Air Quality	The draft EIS's air quality modeling and analysis are flawed. As explained in the conservation groups' comment letter, and in a review prepared by an outside	The BLM has presented detailed air quality analysis results in the near-field (within 50 km) of a future example project, as well as regionally across the entire NPR-A. For the near-field

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(see above)	*(see above)*	*(see above)*	*(see above)*	23 *(cont.)*	*(see above)*	expert, BLM's air quality modeling and analysis are flawed.45 The analysis fails to ensure that no significant adverse impacts on air quality would occur because it fails to account for all construction, drilling, and operation activities that will occur at the same time, and it does not include representative background air quality data. It also improperly relies on the Willow Master Development Plan DEIS, which is deficient and likely underestimates impacts. BLM must correct these deficiencies. It is particularly important to NVN that BLM use accurate baseline data and that it fully consider the cumulative effects of oil and gas development on our air quality. 45 M. Williams, Air Quality Review of the BLM's November 2019 National Petroleum Reserve in Alaska Integrated Activity Plan Draft Environmental Impact Statement (Jan. 13, 2020); see also M. Williams, Air Quality Review of the BLM's August 2019 Willow Master Development Plan Draft Environmental Impact Statement (Oct. 21, 2019).	analysis, the air quality analysis results from the Willow MDP DEIS (which is a large proposed development in the NPR-A) were used to provide an estimate of near-field air quality impacts from a future individual project in the NPR-A, since detailed information is currently not available on such future projects. For the regional air analysis, photochemical modeling was performed with CAMx for the alternative/scenario combination with the highest oil production and emissions (namely Alternative D, High Development scenario) to provide a conservative (i.e., protective of the environment) measure of air quality impacts. In the Air Quality sections (3.2.2 and Appendix H) of the IAP/EIS, the BLM had demonstrated that no significant adverse impacts would occur by showing that impacts would be below ambient air quality standards and health-based thresholds. The BLM addresses responses to the Willow MDP DEIS comments as part of the Willow EIS Process. The BLM selected the Willow MDP DEIS modeling scenarios in consultation with air quality specialists at key cooperating agencies and after careful consideration of peak emissions and spatial and temporal variations to capture high impacts. Construction was modeled for the maximum year of emissions because there is construction activity in different locations in different years. The near-field modeling impact analysis also includes a developmental drilling scenario that includes concurrent drilling and operations. The purpose for modeling the other individual scenarios

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(see above)	*(see above)*	*(see above)*	*(see above)*	23 *(cont.)*	*(see above)*	*(see above)*	was to assess any other high spatial impacts that may not show up in the other scenarios. The BLM also notes that a project-specific, near-field NEPA analysis would be required for any development (individual project) to be authorized in the NPR-A. This would also include background concentrations appropriate to that project.
Fisher	Kevin	North Slope Borough	29290	30	Air Quality	Page 3-4 -Section 3 .2.1, Impacts Common to All Action Alternatives * "The downstream greenhouse gas emissions for the two IAP development scenarios in all four alternatives were estimated using Bureau of Ocean Energy Management's Greenhouse Gas Lifecycle Model (BOEM 2019 see Appendix G, Section G.2)." o Appendix G, Section G.2 is titled "Social Cost of Carbon" and does not discuss market substitution. * Market substitution of oil from this project with other energy sources is an important topic that BLM should analyze. Market substitution can result in development in other states and countries with less stringent environmental protections than Alaska. Thus, it is possible from a global economic perspective that net environmental impacts and GHG emissions will increase if less oil development occurs in the NPR-A. * BLM needs to answer the question: does oil production on the North Slope produce more or less GHGs (and more or less environmental harm) compared to other oil and gas (or energy development) operations around the world?	The Final IAP/EIS has been revised to correctly reference Section G-3 of Appendix G). The BLM is not required to analyze the environmental protections or lack thereof in other countries and their effect on global oil production and the global economy.

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Fisher	Kevin	North Slope Borough	29290	45	Air Quality	Para 2, 1 6 -it would be informative to know what the model domain receptor grid size was used. Were the grid sizes smaller around the sensitive receptor to improve the model skill? Were balloon sounds data from Utqiagvik used to provide upper atmosphere data? If so consider mentioning it. What were the surface roughness settings? Was building downwash used? Consider tabulating the main settings, similar to how the CAMx model parameters were provided, for both information and so that an independent entity could re-run the AERMOD for verification/re-evaluation.	The BLM tiered to the near-field air quality modeling conducted for the Willow MDP Draft EIS to represent a hypothetical future development in the NPR-A; the information requested is therefore relevant to the Willow Project. Detailed information on the near-field modeling configuration and inputs (as requested) is provided in the Willow MDP DEIS Air Quality Technical Support document, which has been cited in the NPR-A IAP/EIS.
Labrado	Carrie	Point Lay	27304	1	Air Quality	Your study on air quality near Nuiqsut, what -- when did development boom and in what years and what was the air quality then?	There have been no exceedances of the Alaska Ambient Air Quality Standards measured on the North Slope in any year for which data are available that were not due to natural events, such as wind-blown silt. Development near Nuiqsut began with the Kuparuk Field in 1979, with production starting in 1981 and has continued to the present day.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	3	Air Quality	We recommend that the Final EIS include additional information to explain why the near-field air quality modeling analysis conducted for the Willow Master Development Plan Draft EIS is representative of anticipated impacts of future developments in the NPR-A. For example, we recommend discussing: the likely emissions sources, levels, and configuration; topography; meteorology; distance to sensitive receptors; etc. In addition, we recommend that the	The BLM used the near-field air quality modeling conducted for the Willow MDP Draft EIS to represent a hypothetical future development in the NPR-A. The IAP/EIS is analyzing impacts from a hypothetical future development, and the old Willow proposal is still representative of a potential development in the NPR-A. Any new development in the NPR-A will have phased construction in support of delineation and development drilling leading to production. Infrastructure may consist of an airstrip

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(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	Final EIS provide additional information to support the conclusion that potential future developments would have equal or lesser emissions than the Willow project. We note that, regarding Alternative B, the Draft EIS states that the "representative" near-field impacts presented based on the Willow project "are an overestimation of the impacts that would occur under low and medium development scenarios, as no Central Processing Facility would be developed under these scenarios." We recommend confirming the accuracy of this statement, since the Appendix B Reasonably Foreseeable Development Scenario Section B.8.2 Medium Scenario states that, "A new CPF and development would likely be constructed in the area south or west of Teshekpuk Lake." We recommend that it would be helpful to agency decision makers and the public for Section B.9 Development Projections by Alternative to provide additional detail regarding the development components that would be anticipated under low, medium, and high scenarios for each alternative as a supplement to the information provided in Table B-2. We also recommend that the near-field modeling results for a "representative nearby community" be removed from the air quality analysis in the Final EIS (pg. 3-12 to 3-13). The potential impacts at a community would be dependent on project-specific details, including the proposed emissions sources,	and multiple satellite pads that are connected by infield roads and pipelines to a central processing facility. A single, larger-diameter pipeline will lead from the central processing facility to market. Operations will be dependent on a gravel source, construction materials, oversized modules, and transportation to the project location. Willow, with five production pads, each containing up to 50 wells, is therefore a conservative estimate of potential future developments that could be authorized under the new IAP. The Final IAP/EIS has been updated to include the following in Appendix H, either directly or by reference to Willow MDP DEIS: emission sources, levels, configuration, topography, meteorology, and distance to receptors. Note that some of this information was also previously provided in the DEIS. Appendix B of the Final IAP/EIS has been updated with the additional information on the type of developments in the low, medium, and high scenarios in each alternative. The text has been clarified to note that the emissions and impacts in the high development scenario of Alternative B would be greater because of higher production and not necessarily because of the presence or absence of a central processing facility. With regard to the last part of the comment, even though near-field impacts would depend on project-specific details, the BLM believes that it is useful to retain the example near-field analysis as it provides an approximate measure of near-source

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(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	topography, meteorology, and distance to the community. Therefore, the near-field impacts modeled at Nuiqsut for the Willow project are not meaningful to this planning-level analysis and may be confusing to readers.	criteria and hazardous air pollutant impacts near one such project proposed in the NPR-A.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	7	Air Quality	We recommend that the analysis of cancer risk consider the potential for an exposure duration longer than 30 years. Elsewhere in the document, the overall lifetime for emissions associated with reasonably foreseeable development considered in this analysis is stated as 70 years. While 30 years may be a reasonable project lifetime for a single development project, residents could be exposed to emissions from multiple projects over their lifetime depending on the location of future activities. Consistent with our scoping comments, we continue to recommend that air quality analyses for oil and gas projects consider a larger list of HAPs. The Draft EIS analyzes hazardous air pollutant impacts from benzene, toluene, ethylbenzene, xylene, n-hexane, and formaldehyde. We note that 40 CFR Part 63 subpart HH Table 1 lists hazardous air pollutants for oil and natural gas production facilities, and includes the following additional pollutants: acetaldehyde, carbon disulfide, carbonyl sulfide, ethylene glycol, naphthalene, and 2,2,4-trimethylpentane. Additionally, arsenic, nickel and P AHs are components of diesel emissions that could also be considered in an analysis of HAPs. According to	The cancer risk analysis has been updated to include a 70-year time frame. The BLM analyzes the 6 HAPs most common to oil and gas development projects. If the six HAPs do not show an adverse impact, no further analysis is conducted by BLM for other HAPs.

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	emissions quantified in the Draft EIS, the quantity of volatile organic compounds anticipated to be emitted is approximately an order of magnitude larger than the “total HAPs” category; however, as the chemical-specific risks associated with the full-range of VOC emissions are not currently quantitatively assessed, there is uncertainty around this analysis.	*(see above)*
Bruno	Jeff	State of Alaska	29317	69	Air Quality	Page #: 3-18 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph three discusses ground level ozone and proposes that ozone concentrations would be increased due to increasing temperatures. It is not clear that the science being relied upon for this conclusion is appropriate for Alaska. The study area cited in (Wise 2009) is the U.S. Southwest, which has completely different environmental and sunlight conditions from those found on the North Slope of Alaska. Suggestion if applicable: Please explain the science behind why increasing ozone concentrations would occur in Alaska.	The sentence had been provided in the context of the general potential for climate change (increasing temperatures) to affect air quality by changing ozone concentrations. However, the BLM is not aware of any specific evidence in the NPR-A to indicate increasing ozone due to increasing temperatures and hence the Final IAP/EIS has been updated to delete these two sentences: ““For the air quality resource, climate change has been shown to affect ground-level ozone. It has been found that concentrations of ground level ozone are likely to increase due to increasing temperatures (Wise 2009”).

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Bruno	Jeff	State of Alaska	29317	70	Air Quality	Page #: 3-18 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph three mentions the potential for increasing wildfires. It is not clear that there have been any historical wildfires in the NPR-A. Suggestion if applicable: Please clarify whether this potential is based in fact.	Although wildfire is rare in the Arctic tundra, it does occur. Wildfires have occurred on the North Slope as well as near the NPR-A. For example, there were a large number of fires in the Noatak National Preserve in 2010. The increase in human activity due to development could increase the potential risk for wildfire in the NPR-A. The Final IAP/EIS has been updated to revise Section 3.2.2 to clarify that the reference to wildfires is with respect to the Arctic in general, including regions from where air pollutants could be transported to the NPR-A.
Bruno	Jeff	State of Alaska	29317	65	Air Quality	Page #: 3-11 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph four on this page notes that the proposed Willow development project includes a gravel island. Based on stakeholder input, the November 2019 version of the EIS appears to be exploring other options and has issued another alternative that proposes use of the Oliktok Dock and a crossing of the Colville River at Ocean Point. Suggestion if applicable: Please discuss this comparison with the writers of the Willow development EIS to make sure this information is still applicable.	The Final IAP/EIS was updated.

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Donahey	Leah	Alaska Wilderness League	29320	94	Air Quality	Given that the near-field modeling analysis presented in the NPR-A IAP and Willow MDP DEIS predict PM10 impacts that are approaching levels of the NAAQS (e.g., 24-hour PM10 concentrations from construction activity are 80% of the NAAQS), it is imperative that BLM fully account for all sources of background air quality in order to ensure that additional impacts from the proposed development in the NPR-A will not cause or contribute to exceedances of the PM10 NAAQS.	The BLM accounted for all known background sources of PM_{10} by using measurements at Nuiqsut and by considering emissions from other known cumulative sources in the near-field modeling domain that started after the time period used for the Nuiqsut monitoring data.
Donahey	Leah	Alaska Wilderness League	29320	104	Air Quality	The release of vented and flared gas from oil and gas operations contributes to greenhouse gas emissions, with vented gas contributing as methane and flared gas causing localized impacts from particulates deposited on snow and ice as black carbon. The Alaska Oil and Gas Conservation Commission collects data on vented and flared gas releases greater than one hour. BLM should analyze these data - similar to how BLM analyzed spill data for the North Slope - and quantify the rate and total projected quantity of these releases. Additionally, BLM should reduce the releases of vented and flared gas to the maximum extent through stringent requirements to reduce venting and flaring.	Greenhouse gas emissions from venting and flaring gas from an example project in the NPR-A (Willow) have been quantified and included in the GHG emissions reported in Tables 3-1 and 3-2 in Section 3.2.1 of the Final IAP/EIS. Criteria air pollutant emissions from flaring are also accounted for in the air quality modeling presented in Section 3.2.2. Evaluating additional specific impacts of venting and flaring is beyond the scope of this planning-level IAP/EIS, which is to evaluate the impacts of availability of leasing and infrastructure development and not site-specific future development activity. This type of analysis would be performed as needed during a site-specific NEPA analysis at the time a development application is submitted.

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Donahey	Leah	Alaska Wilderness League	29320	96	Air Quality	The NPR-A IAP DEIS expressly avoids presenting a PSD increment analysis.670 BLM should complete a proper PSD increment analysis to determine how much of the available increments will have already been consumed in the affected area (e.g., by GMT}, GMT2, Willow, and other sources) and how much additional increment is available for consumption from the proposed NPR-A IAP. Without this level of analysis, BLM is not adequately ensuring that air quality will not deteriorate more than allowed under the CAA. Specifically, BLM should complete an analysis of all increment consuming and increment expanding sources that impact the same area impacted by the proposed action, including an inventory of increment-affecting emissions (i.e. , emissions from major stationary sources which commenced construction or modification after the applicable "major source baseline date" and emissions increases from minor, area and mobile sources that occurred after the relevant "minor source baseline date").671 ------- 670 1 DEIS app'x H at H-4 (" ... a PSD increment analysis is not relevant to disclosing impacts or decision making in this IAP and therefore, a PSD increment analysis is not presented in this EIS"). 671 The major source baseline dates are January 6, 1975 for SO2 and PM10 and February 8, 1988 for NO2 (40 CFR 52.21(b)(14)(i)). The minor source baseline dates in Alaska differ by pollutant and by [baseline]	A PSD increment analysis is not required for this region-level IAP/EIS, which is to evaluate the impacts of availability of leasing and infrastructure development and not site-specific future development activity. A PSD-increment analysis would be performed as needed for increment consuming sources during a site-specific NEPA analysis at the time a development application is submitted.

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(see above)	*(see above)*	*(see above)*	*(see above)*	96 *(cont.)*	*(see above)*	area and were triggered on the date that a complete PSD permit application was received by the State. See definitions of "major source baseline date", "minor source baseline date" and "baseline area" in 40 C.F.R. §§ 52.21(b)(14)(i), 52.21(b)(14)(ii) and 52.21(b)(15).	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	93	Air Quality	BLM presents total air pollutant concentration impacts in the NPR-A IAP DEIS as the sum of the modeled source impact plus background levels of pollution. But BLM does not specify what air monitoring concentrations it uses as representative background levels of air pollution. The Air Quality Appendix (H) for the NPR-A IAP DEIS states that the background concentrations representative of an IAP development area "are discussed in Section Air Pollutant Concentrations." However, there is no such section in Appendix H and the Air Pollution Concentrations section in the NPR-A IAP DEIS only speaks generally of the monitoring data presented in Appendix H and does not identify which of those data BLM considers to be representative background concentrations for its impact analysis.641 The monitoring data presented in Appendix H of the DEIS are from 10 ambient air monitoring stations located across the North Slope. BLM must identify which monitoring station(s), timeframes, etc. it considers representative of background concentrations for the NAAQS analysis in the NPR-A IAP DEIS. --------- 641 See 2 DEIS app'x H at H-2 1; 1 DEIS at 3-8.	The BLM used the Nuiqsut monitoring station for background concentrations for the example project (Willow) impacts presented in the EIS. Appendix H of the Final IAP/EIS has been revised to clarify what air pollutant concentrations were used. During site-specific NEPA analyses, appropriate background concentrations would be chosen from one of the background monitoring stations discussed.

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Schell	John	ConocoPhillips Alaska	29272	26	Air Quality	Page 2-10 ROP A-10 b Alternative A: ROP A-10 (a) Alternatives B, C, and D: ROP A-10(b) BMP A-10 a. or ROP A-10 d. Baseline ambient air monitoring (if deemed appropriate by the BLM) should not be restrictive of the year immediately prior to (or the year before) the submittal. When baseline ambient air monitoring is appropriate, the timing should have the same flexibility as EPA permitting regulations. 40 CFR 51 Appendix W Section 8.3 discusses background data and recommendations for ambient monitoring. This information is already codified. BLM should defer to this existing rule for recommendations on when and the duration of background data collection should occur.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	27	Air Quality	Page 2-10 ROP A-10 b Alternative A: ROP A-10 (a) Alternatives B, C, and D: ROP A-10(b) BMP A-10a. or ROP A-10 b. For non-PSD projects, the BLM should not require that ambient air quality monitoring data meet the same data requirements as PSD projects (EPA and ADEC regulations). Baseline/background data is a requirement for all Air Quality permitting types (minor and Prevention of Significant Deterioration (major)). The PSD program contains a requirement to conduct pre-construction air monitoring. This data, however is not intended to replace proper baseline/background data. The EPA could reject the pre-construction data collected to meet PSD preapplication requirements and not use that data in a modeling exercise. BLM is encouraged to align the baseline data collection requirements with baseline data collection to support ambient modeling requirements in PSD and minor source permitting. BLM's end use for the ambient data collected would be in a modeling demonstration, therefore that is what this BMP/ROP should be striving toward.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	25	Air Quality	Page 2-10 ROP A-10 a Alternatives B, C, and D ROP A-10 (a) ROP A-10 a. should be revised to read as follows: a. All projects and permitted uses will comply with applicable National and Alaska Ambient Air Quality standards (NAAQS/AAAQS) and ensure air quality related values are protected at Class I and sensitive Class II areas as they are defined in the Air Quality Memorandum of Understanding. ROP A-10 a. is a new proposed condition. The proposed requirement for all projects to comply with all applicable NAAQS/AAAQS raises concerns that it is duplicative with EPA's authority to protect the NAAQS and could possibly violate the requirement in Executive Order 12866 that each agency, “shall avoid regulations that are inconsistent, incompatible, or duplicative with its other regulations or those of other Federal agencies.” It is the purview, granted via the Clean Air Act, of the EPA/ADEC to ensure compliance with applicable NAAQS/AAAQS in all areas.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	28	Air Quality	Page 2-10 ROP A-10 b Alternative A: ROP A-10 (a) Alternatives B, C, and D: ROP A-10(b) BMP A-10 a. or ROP A-10 b. Concessions need to be given for infeasibility of ambient air quality data collection. There could be a circumstance where no air monitoring data exists and BLM requests monitoring for the project area (in a remote area). There are currently no approved monitoring systems which can operate without being connected to an electrical grid and without frequent visits. This monitoring system would most likely require winter and summer tundra travel and refueling over tundra in order to maintain station temperatures that conform to EPA standards. The logistics alone for this hypothetical station seemingly prove infeasible or have a very low probability of success. Given these factors, it would appear that collecting the data would be more impactful to the environment than not.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	29	Air Quality	Page 2-10 ROP A-10 d Alternative A: ROP A-10(e) Alternatives B, C, and D: ROP A-10(d) BMP A-10 e. or ROP 10 d. should be revised to explicitly state BLM will not ask for modeling unless the project will already trigger an ADEC permit classification that would require modeling. There should not be a circumstance where the BLM requires air quality modeling and ADEC does not. The reason for air quality modeling is to determine the project impacts as compared to the NAAQS/AAAQS. Protection of the NAAQS/AAAQS is under the authority of EPA/ADEC granted by the Clean Air Act. Projects with emissions of a given pollutant are understood by the ADEC/EPA to have minimal impacts without the need for explicit modeling if that project is located in an attainment/unclassifiable area and if project emissions fall below significant emission rates in 18 AAC 50.502(c)(4)(A). This assessment does not explicitly predict impacts, but it does, in fact address impacts using codified screening levels designed to require projects anticipated to have higher impacts to provide progressively more explicit impact quantification, as it becomes less clear that the project will have minimal impacts. If an air quality permit with air modeling is not required by ADEC, there is no reason for modeling to be required by the BLM.	ROP A-10 has been updated in the Final IAP/EIS.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	24	Air Quality	Accurate information about current air quality in Nuiqsut does not exist.	The IAP/EIS includes the best available information about baseline air quality in Nuiqsut.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	24	Air Quality	An up-to-date, independent study of the air quality in our community and the surrounding region must be conducted before BLM finalizes any revision of the IAP. This analysis should be conducted by independent outside experts, not oil companies or agencies with an interest in development. This analysis will take time and is another reason why we believe any decision on revising the IAP should be delayed.	The IAP/EIS analysis is based on the best available information. NEPA does not require conducting new studies to evaluate impacts.
Fisher	Kevin	North Slope Borough	29290	35	Air Quality	Para 5, LI: at the end of the sentence 'The near-field impact assessment was conducted using the EPA regulatory air dispersion model AERMOD to assess criteria air pollutants (excluding ozone and lead) and hazardous air pollutants within 50 km of a development' add the references cite: Perry, S.G., Cimorelli, A.J., Paine, R.J., Brode, R.W., Weil, J.C., Venkatram, A., Wilson, R.B., Lee, R.F., Peters, W.D., 2005. AERMOD: a dispersion model for industrial source applications. Part II: model performance against 17 field study databases. Journal ofApplied Meteorology 44, 694-708; Gibson, M.D., Kundu, S., Mysore, S. (2013) Dispersion model evaluation of PM2_5, NOx and SO2 from point and major line sources in Nova Scotia, Canada using AERMOD Gaussian plume air dispersion model. Atmospheric Pollution Research, 4 pp157-167.	The Final IAP/EIS has been updated to include the reference citations provided in Section 3.2.2.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	36	Air Quality	Para 5, L 1: After ' ... and hazardous air pollutants within 50 km of a development (cite: Perry et al., 2005 and Gibson et al., 2013 as above)' now insert 'AERMOD is not equipped to account for the chemical reactivity of emissions, but within a 50 km x 50 km model domain the losses of emitted air pollutants due to chemical reactions are minor (Gibson, M.D., Kundu, S., Mysore, S. (2013) Dispersion model evaluation ofPM2_5, NOx and SO2 from point and major line sources in Nova Scotia, Canada using AERMOD Gaussian plume air dispersion model. Atmospheric Pollution Research, 4 pp157-167; Stevens, R.G., Pierce, J.R., Brock, C.A., Reed, M.K., Crawford, J.H., Holloway, J.S., Ryerson, T.B., Huey, L.G., Nowak, J.B., 2012. Nucleation and growth of sulfate aerosol in coal-fired power plant plumes: sensitivity to background aerosol and meteorology. Atmospheric Chemistry and Physics 12, 189-206).	The Final IAP/EIS has been updated to include the reference citations provided in Section 3.2.2.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	39	Air Quality	Page 3-17 -Cumulative Impacts * Para 4, LI. Consider changing 'Comprehensive Air Quality Model with Extensions' to the acronym 'CAMx.' * Para 4, LI. Add the reference (cite: Bakera, K. and Scheff, P. (2007). Photochemical model performance for PM2_5 sulfate, nitrate, ammonium, and precursor species SO2, HNO3, and NH3 at background monitor locations in the central and eastern United States. Atmospheric Environment 41 (2007) 6185-6195. doi:10.1016/j.atmosenv.2007.04.006 ; Krish Vijayaraghavan, Chris Lindhjem, Bonyoung Koo, Allison DenBleyker, Edward Tai, Tejas Shah, Yesica Alvarez & Greg Yarwood (2016) Source apportionment of emissions from light-duty gasoline vehicles and other sources in the United States for ozone and particulate matter, Journal ofthe Air & Waste Management Association, 66:2, 98-119, DOI: 10.1080/10962247.2015.1112316. after 'Comprehensive Air Quality Model with Extensions' <now the acronym CAMx.	The Final IAP/EIS has updated to include the acronym CAMx and references have been provided in Section 3.2.2.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	26	Air Quality	In addition, there was no mention of coarse particles (between the size fractions of PM2.s and PM10)? I mention this because PM10 contains PM2_5, so it is perhaps worth the effort to mention this so the reader understands that fugitive road dust is comprised of coarse particulate matter (PM2_5_10) and that high energy and secondary biogenic and photochemically generated particles are found in the fine fraction of particulate matter, e.g. PM2_5	While it is commonly understood that PM_{10} due to fugitive road dust is primarily coarse PM, to add in the clarity, the Final IAP/EIS has been updated, adding this information (as well as the fine PM containing secondary particles) to Section 3.2.2.
Fisher	Kevin	North Slope Borough	29290	37	Air Quality	Page 3-16-Alternative D * Para 6, L2-Consider adding the acronym '(CAMx)' after 'Comprehensive Air Quality Model with Extensions.' Then the sentence: 'CAMx is a photochemical grid model that helps air quality managers determine if emissions from planned new development will lead to unacceptable reductions in air quality in a given region. CAMx is provided by Ramboll Environ (www.camx.com/) and comprises a "one-atmosphere" treatment of tropospheric air pollution over spatial scales ranging from neighborhoods to continents (cite: Bakera, K. and Scheff, P. (2007). Photochemical model performance for PM2_5 sulfate, nitrate, ammonium, and precursor species SO2, HNO3, and NH3 at background monitor locations in the central and eastern United States. Atmospheric Environment 41 (2007) 6185-6195. doi: 10.1016/j.atmosenv.2007 .04.006.	The Final IAP/EIS has been updated to include the acronym CAMx, as suggested.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	33	Air Quality	Page 3-9-Air Pollution Emission Sources * Para 4, L 2 -Consider replacing 'particulate matter, including both ... ' with PM2_5 and PM10' ... or, perhaps define fine (PM2.s) and coarse particles (PM2.s-10) instead to differentiate between anthropic (fossil fuel combustion particles) and natural windblown dust. * Para 5, L 4 - consider removing "The primary air pollutant emitted from this activity is carbon monoxide." This appears to be an orphan sentence that does not fit the paragraph. Or expand the sentence to include NOx, PM2.s, HAPs and VOCs because aircraft emissions emit more than just carbon monoxide.	The Final IAP/EIS has been updated to add the additional text on $PM_{2.5}$ and PM_{10}, as recommended in Section 3.3.2, and clarified that aircraft emissions are more than carbon monoxide.
Fisher	Kevin	North Slope Borough	29290	34	Air Quality	Page 3-11 -Effectiveness of Stipulations and Required Operating Procedures * Para 5, Ll -after' ... EPA regulatory air dispersion model. .. ' consider adding 'American Meteorological Society and U.S. Environmental Protection Agency Regulatory Model (AERMOD) ... '	The Final IAP/EIS has been updated to add the term "AERMOD," as recommended in Section 3.2.2.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	44	Air Quality	Appendix H-32 -Near-filed Assessment Method * Para 2, 1 1 - define 'AERMOD' and add the references (Gibson, M.D., Kundu, S., Mysore, S. (2013) Dispersion model evaluation ofPM2_5, NOx and SO2 from point and major line sources in Nova Scotia, Canada using AERMOD Gaussian plume air dispersion model. Atmospheric Pollution Research, 4 pp157-167; Perry, S.G., Cimorelli, A.J., Paine, R.J., Brode, R.W., Weil, J.C., Venkatram, A., Wilson, R.B., Lee, R.F., Peters, W.D., 2005. AERMOD: a dispersion model for industrial source applications. Part II: model performance against 1 7 field study databases. Journal of Applied Meteorology 44, 694-708.	The Final IAP/EIS has been updated to define "AERMOD" and added the reference provided.

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Sielak	George	Nuiqsut	27399	1	Air Quality	I think that's something that's need to be put out there, because, as we all see it, oil industry is surrounding our village, and I think it's time that organizations or the regulators be regulated of what we want around our community, because we're totally surrounded and to have cleaner air to breathe. You know, put some filters -- filtrations on the emissions. And, I mean, something that can tell us that, oh, we're doing this and the operators are complying. And, I mean, that's a good -- good sign that, you know, you're doing something to make sure that they, you know, respect our community and the people; and not only us humans, but all the habitat that's out there. So I know that's doable; its just somebody just need to, you know, work on it to make sure at least we're -- you're meeting us halfway; I mean, not halfway, but totally cut down emissions and have a -- live healthier air to breathe for our community.	Mitigation measures for specific projects to reduce air quality impacts would be imposed at the permitting stage for that project.
Hartsig	Andrew	Ocean Conservancy	29278	7	Air Quality	the draft IAP/EIS should include an estimate of the costs associated with greenhouse gas emissions that will result from activities authorized under the proposed IAP.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	10	Air Quality	* Where appropriate, BLM should defer to other agencies' expertise and authority in their ROPs. For instance, ROP A-10 should defer to the State of Alaska Department of Environmental Conservation in their jurisdiction and expertise governing air quality. Under ROP A-10, BLM could require air quality modelling for virtually any development without clear justification. If unjustified, air quality modelling can cause significant delays to project with little environmental benefit. RDC recommends BLM only conduct air quality modelling and monitoring when it is environmentally and scientifically defensible and revise ROP A-10 as appropriate. Across all the ROPs, the IAP should be focused and clear on BLM's authority.	ROP A-10 has been updated in the Final IAP/EIS.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	5	Air Quality	We recommend that the Final EIS confirm whether the secondary PM2.5 concentrations determined by CAMx for the Willow project were added to determine the total PM2.5 near-field impacts. Regulations found at 40 CFR Part 51, Appendix W recommend that the contribution of the secondarily-formed components be accounted for in the assessment of PM2.5, otherwise the total impact may be underestimated.	Secondary $PM_{2.5}$ concentrations were added to determine the total $PM_{2.5}$ near-field impacts.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	8	Air Quality	We recommend that references to "sub chronic" be removed from text and tables discussing the use of Acute Exposure Guideline Levels. AEGLs refer to short-term exposures (AEGLs presented in the Draft EIS are 8-hour duration values), whereas subchronic exposure is typically weeks to months in duration.	The Final IAP/EIS has been updated to remove the reference to "sub chronic," as recommended.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	10	Air Quality	Regarding impacts of climate change on potential future development, Section 3.2.1 discusses the potential impacts of thawing permafrost, including damage to infrastructure and increased road maintenance. We recommend that these potential impacts also be considered in the air quality assessment, because damaged roads and road maintenance can result in significant increases in air emissions, particularly fine and course particulate matter (i.e., PM2.5 and PMIO), which might impact attainment with the Alaska Ambient Air Quality Standards and National Ambient Air Quality Standards.	The Final IAP/EIS has been updated in Section 3.2.2 to describe qualitatively the potential impacts of thawing permafrost, including damage to infrastructure and increased road maintenance with regards to particulate matter. A project-specific, near-field NEPA analysis that would consider detailed particulate matter impacts would be required for any development (i.e., individual project) to be authorized in the NPR-A.

Z.3.3 ANCSA

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Obed	Sarah	Doyon, Limited	27862	8	ANCSA	BLM should continue to engage Doyon in meaningful consultation throughout the remaining stages of the review and decision-making process. This consultation should not be limited to group format meetings involving multiple tribes and Alaska Native corporations but must provide ample opportunities for one-on-one conversations. While Doyon appreciates BLM's interest in group meetings for efficiency and other reasons, such meetings are not always conducive to meaningful discussions of Alaska Native corporation issues and concerns. Alaska Native corporations have particularized interests that differ from those of tribal entities, and not all Alaska Native corporations are similarly situated or necessarily share the same interests. Pursuant to Federal law and policy, BLM must ensure that Alaska Native corporations are provided the opportunity to meaningfully participate in Federal agency decision-making processes that could impact our ability to fulfill the purposes for which we were established under ANCSA and to protect and advance the economic, social, and cultural interests of our shareholders.	The BLM held a consultation with Doyon on April 1, 2020.

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Tukrook	Fred	Point Lay	27332	3	ANCSA	Whatever happened to our Native Claim Settlement Act for the Inupiat people? Everything I see up there on their map is everything about land but no land claim settlement for the village people. It's our right to have our land back where we used to go hunting there for the time being.	Subsistence use of the NPR-A is protected in all alternatives in the IAP/EIS.
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	4	ANCSA	ANCSA Consultation Another tool in place for the BLM to gather local knowledge and recommendations directly from the landowners is through ANCSA Consultation, as directed under Executive Order No. 13715. Neither the Department of Interior policy on consultation with Alaska Native Claims Settlement Act (ANCSA) Corporations1 nor its sister document Department of Interior policy on consultation with Indian Tribes2 directs that the local entity must initiate engagement with the federal government. The DOI Policy on ANCSA Consultation states, “When taking Departmental Action that has a substantial direct effect on ANCSA Corporations, the Department will initiate consultation with ANCSA Corporations.3” 1 United States Department of Interior. (Aug. 10, 2012). Department of Interior policy on consultation with Alaska Native Claims Settlement Act (ANCSA) Corporations. https://www.fws.gov/r7/external/native_american/doi_ancsa_policy.pdf 2 Secretarial Order No. 3317 (Dec. 1, 2011), https://www.doi.gov/sites/doi.gov/files/migrated/tribes/upload/SO-3317-TribalConsultation-Policy.pdf 3 United States Department of Interior.	The BLM has offered consultation with appropriate ANCSA Corporations throughout the IAP/EIS process.

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(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	(Aug. 10, 2012). Department of Interior policy on consultation with Alaska Native Claims Settlement Act (ANCSA) Corporations. Page 1-2	*(see above)*
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	5	ANCSA	VOICE recently met with Atqasuk Corporation to discuss the December 2019 Lease Sale and the Alternatives presented in the IAP EIS. We were alarmed to learn that the Corporation - second closest in proximity to leased land in the NPR-A - had not received any requests for a direct ANCSA Consultation from the BLM. In light of this, VOICE does not feel that the BLM made sufficient effort to consult with the relevant Alaska Native Corporations on this document. Consultation is critical to creating long-term partnerships between the Federal government and Alaska Native peoples and is intended to promote effective Federal decision-making and to develop outcomes that are satisfactory to local people with the potential for long-term benefits. Moving forward, the BLM should make it a priority to conduct consultation with the affected Alaska Native Corporations and tribal governments	In development of the Final IAP/EIS, the BLM consulted with ANCSA Corporations and reached out to consult directly with the Atqasuk Corporation.

Z.3.4 ANILCA/Section 810

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Bruno	Jeff	State of Alaska	29317	54	ANILCA/ Section 810	Page #: ES-8 Table or figure: Reviewer Name/Agency: ANILCA Comment: ANILCA requirements involve more than just the Section 810 Analysis. Suggestion if applicable: Please re-write this section to address all relevant sections of ANILCA, including but not limited to the required 810 Analysis. E.g., the IAP should include information outlining how the State and private landowners will be able to obtain temporary access across NPR-A in accord with ANILCA Section 1111.	Appendix D provides a comprehensive list of all federal, state, and local laws and regulations associated with future development in the NPR-A.
Schell	John	ConocoPhillips Alaska	29272	140	ANILCA/ Section 810	Appendix Y As stated, BLM contracted SRB&A to review existing sources of traditional knowledge and compile the information into a report. The purpose of this compilation is to provide relevant traditional knowledge quotes organized by various resource topics for consideration and incorporation in the EIS. ConocoPhillips disagrees that all of the quotes in the compilation are "traditional knowledge", which this IAP/EIS impact analysis seems rely heavily upon. Many quotes are personal testimony from various public meetings and hearings and may not be directly attributable to this IAP/EIS or may describe an issue or concern that has been resolved or mitigated in a proactive manner. Personal opinion and observations do not equate to traditional knowledge . This does not necessarily diminish the statement or opinion, however it may not be	While not all public testimony contains traditional knowledge, many comments made during public hearings, including issues and concerns, occur in the context of knowledge about the physical and biological environment. The traditional knowledge compilation defines traditional knowledge "in a broad sense to include local observations and information that residents have provided regarding their physical, biological, and social environment." Traditional ecological knowledge was referenced in sections where they were relevant. Quotations were removed from the main body of the IAP/EIS text and paraphrased. Quotations can be found in Appendix Y. It is unclear which particular quotes the commenter believes are not traditional knowledge or are not relevant to the document. Furthermore, the BLM does not establish lease stipulations, ROPs, or lease notices or make a determination of a final

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	140 *(cont.)*	*(see above)*	appropriate for BLM to establish lease stipulations, required operating procedures, or lease notices or make a determination of a final preferred alternative simply based on isolated testimony about of perceived impacts, some of which are outdated because they are significantly mitigated by current permit requirements and best management practices.	preferred alternative based solely on traditional knowledge.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	21	ANILCA/ Section 810	Alternative D will result in subsistence restrictions of all three types. Notwithstanding BLM's failure to conclude that Alternative D will lead to restrictions on access, all of the restrictions on hunter access described above will be significantly greater under Alternative D because it: would substantially increase the potential for direct impacts on the primary study communities, particularly for the communities of Nuiqsut, Atqasuk, and Utqiagvik resulting from a larger percentage of subsistence use areas being open to oil and gas development and new infrastructure, and more subsistence use areas being in areas of moderate to high development potential for certain communities.44 44 Id. at E-33 to E34 (internal references omitted).	The ANILCA 810 analysis has been updated to state that all alternatives may significantly restrict access to subsistence resources for the community of Nuiqsut. See Appendix E for more details.

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Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	13	ANILCA/ Section 810	As part of its evaluation of the effect on subsistence uses and needs, BLM must consider the cumulative impacts18 and analyze: a) Reductions in the abundance of subsistence resources caused by, for example, a decline in the population or amount of harvestable resources; b) Reductions in the availability of resources used for subsistence purposes caused by alteration of their normal locations, migration, or distribution patterns; and c) Limitations on access to subsistence resources, including from increased competition for the resources.19	The BLM considered how potential reductions in abundance of subsistence resources, potential redistributions of subsistence resources, and hunter access to harvest areas could impact subsistence hunters in communities that depend on NPR-A resources.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	18	ANILCA/ Section 810	BLM's ANILCA Section 810 analysis fails to acknowledge significant restrictions. While BLM concluded that all alternatives would significantly restrict subsistence, its analysis omits multiple significant restrictions. ANILCA requires that BLM consider three different types of restrictions: 1) Reductions in the abundance of subsistence resources caused by a decline in the population or amount of harvestable resources; 2) Reductions in the availability of resources used for subsistence purposes caused by alteration of their normal locations, migration, or distribution patterns; and; 3) Limitations on access to subsistence resources, including from increased competition for the resources.33 33 BLM, Instruction Memorandum. It is likely that all four alternatives will significantly reduce subsistence resources in each of these ways, as we are already seeing each of these types of	The ANILCA 810 analysis has been updated to state that all alternatives may significantly restrict access to subsistence resources for the community of Nuiqsut. The BLM acknowledges that there will be impacts on subsistence uses under all alternatives. It is not possible to have development without impacts. However, there can be an impact on subsistence uses without it rising to the level of a significant restriction. A significant restriction is defined as "... a substantial reduction in the opportunity to continue subsistence uses of renewable resources. Substantial reductions in the opportunity to continue subsistence uses generally are caused by: large reductions in the abundance, or a major redistribution of resources; extensive interference with access; or major increases in the use of those resources by non-subsistence users." Although there may be impacts on resource abundance under all

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	18 *(cont.)*	*(see above)*	restrictions from development under the existing IAP. And it is clear even from BLM's own analysis that all four alternatives will lead to at least the second and third types of restrictions on subsistence uses, and alternative C and D will likely lead to all three types. But rather than acknowledging these significant restrictions, BLM limits the type of restrictions it acknowledges for each alternative. According to BLM, Alternative A creates restrictions of types 2 and 334; Alternative B and C create restrictions of type 235; and Alternative D creates restrictions of types 1 and 2.36 This analysis is incorrect and misleading. 34 Draft EIS, App. E at E-25. 35 Id. at E-30, E-33. 36 Id. at E-35	alternatives, these impacts do not rise to the level of a significant restriction for all alternatives. See Appendix E for more information.
Bruno	Jeff	State of Alaska	29317	55	ANILCA/ Section 810	Page #: 1-1 Table or figure: Reviewer Name/Agency: ANILCA Comment: This section omits the Alaska National Interest Land Conservation Act (ANILCA) from the list of laws BLM complies with. Suggestion if applicable: Last sentence of the Overview. Please add the ANILCA to the list of applicable laws BLM complies with.	The list of applicable laws that is presented in Section 1.1 is not all inclusive. See Section 1.9 and Appendix D for a detailed description of BLM's compliance with ANILCA.

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Bruno	Jeff	State of Alaska	29317	46	ANILCA/ Section 810	Page #: Appendix E, E-40, last para Table or figure: Reviewer Name/Agency: ADF&G Comment: This paragraph includes a statement "Leases on State lands do not have prohibitions or protections on development along the Colville River, a heavily utilized subsistence corridor for caribou hunting." This statement is incorrect as protections along the Colville River on State lands do occur. Suggestion if applicable: See the ADNR, Division of Oil and Gas, North Slope Areawide Oil and Gas Lease Sales Final Finding of the Director, 2018, Chapter Nine, Mitigation Measures for mitigation measures that are attached to state leases along the Colville River.	Final 810 language was updated to accurately reflect State protections along the Colville River.
Bruno	Jeff	State of Alaska	29317	53	ANILCA/ Section 810	Page #: ES-1 Table or figure: Reviewer Name/Agency: ANILCA Comment: Last sentence of the introduction omits the Alaska National Interest Land Conservation Act (ANILCA) in the list of applicable laws BLM complies with. Suggestion if applicable: Please add the ANILCA to the list of applicable laws BLM complies with.	Appendix D provides a comprehensive list of all federal, state, and local laws and regulations associated with future development in the NPR-A.
Bruno	Jeff	State of Alaska	29317	86	ANILCA/ Section 810	Wild and Scenic River Study and "Interim" Protections Violate ANILCA We appreciate and concur with BLM's decision to drop the reference to the 1993 American Rivers vs. Lujan settlement agreement from its rationale for conducting wild and scenic river studies within the NPR-A, as listed in the 2012 IAP/EIS. However, the Legislative Constraints section of the IAP (Section 1.6, Page 1-4) does not recognize the	Section 5(d)(1) of the Wild and Scenic Rivers Act provides "In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials."

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	legislative constraints imposed on BLM by Congress through ANILCA. The plan inappropriately carries forward interim protections applied to rivers found eligible or suitable in two previous wild and scenic river reviews conducted by BLM. These reviews are inconsistent with ANILCA Section 1326(b), which prohibits studies intended to consider the establishment of conservation system units (CSUs) unless authorized in ANILCA or a subsequent Act of Congress (under ANILCA wild and scenic rivers are CSUs). The wild and scenic river studies conducted by BLM in 2002 and 2012 were not authorized in ANILCA nor by a subsequent Act of Congress. To justify carrying forward this legally flawed planning direction, the IAP cites Section 5(d)(1) of the Wild and Scenic Rivers Act (WSRA), which according to BLM authorizes agency-directed wild and scenic river studies in Alaska, and BLM's national Wild and Scenic River Manual 6400, which is derived from FLPMA Sections 201 and 202 and applicable to the "land use planning process," (i.e. Resource Management Plans) not to the NPR-A Integrated Activity Plan (IAP).1 The IAP acknowledges FLPMA Section 202 does not apply to the NPR-A; therefore, the only activities BLM would be authorized to conduct under BLM Manual 6400 relate to the identification and inventorying of eligible rivers per FLPMA Section 201. No management activities, which are derived from FLMPA Section 202 and relate to RMPs, can	Also, the NPRPA does not exempt NPR-A from the Wild and Scenic Rivers Act, and Section 1326(b) of ANILCA does not apply because the IAP/EIS is not a single-purpose study as described therein. Thus, the BLM properly reviewed Wild and Scenic River suitability in this planning effort.

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(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	be applied to the NPR-A and its IAP. In addition, the IAP fails to acknowledge that the WSRA preceded ANILCA. Any authority in the WSRA that allows federal agencies to conduct agency-directed wild and scenic river studies, including inventories, was superseded by ANILCA Section 1326(b) and the requirement for Congressionally authorized studies when considering the establishment of new CSUs in Alaska. 1 Both 43 CFR 1600 - BLM's planning regulations - and BLM Handbook H-1601-1 - Land Use Planning Handbook - cite FLPMA Sections 201 and 202 as the applicable authorities under FLPMA. Further, protecting the status of eligible or suitable rivers indefinitely, as proposed in the IAP, is a misapplication of the policy direction in BLM Manual 6400, which directs BLM to protect rivers determined eligible in an agency directed study until suitability is determined, and to protect the status of suitable rivers until rivers are recommended for designation in the Record of Decision. Further, the policy implication is that protections are only applied to river recommendations that are submitted to Congress, thereby giving Congress something to act upon.2 The IAP states the 12 rivers were not found suitable for recommendation in the 2012 IAP and were not submitted to Congress for consideration; however the IAP proposes to continue the management of these rivers as if	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	they were submitted to Congress. In particular, the IAP proposes to manage, depending on alternative, upwards of 1.5 million acres of river corridor to protect the free-flowing condition, water quality, and outstandingly remarkable values of the 12 eligible rivers "…to preserve Congress's option to pursue Wild and Scenic River designation" (page 3-284), even though none of the rivers have been recommended or forwarded to Congress for consideration. As apparent justification, the IAP cites the 2012 IAP; however, as described above and noted in our previous comments, the 2012 IAP is also not consistent with ANILCA, BLM's Wild and Scenic River Policy Manual 6400, and the WSRA. 2 "To the extent possible under existing legal authorities (e.g. FLPMA, Clean Water Act, Endangered Species Act, and Archaeological Resources Protection Act), the BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any outstandingly remarkable values to assure a decision on suitability can be made for eligible rivers; or in the case of suitable rivers, until Congress designates the river or releases it for other uses." (Emphasis added, Section 3.5 Management of Eligible and Suitable Rivers as Determined Through BLM-Identified Study or Congressional Authorized Study) To illustrate the process for Congressionally authorized study rivers and in stark contrast to the	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	intent in the IAP, ANILCA directed federal agencies to complete and submit study reports to Congress within a limited three-year time period (1983) and the WSRA limits protection for study rivers authorized by Congress under Section 5(a) to three years following submittal to Congress (1986). The IAP also fails to recognize that through Section 604 of ANILCA, Congress identified three rivers located within the NPR-A (the Colville, Etivluk-Nigu, and Utukok) for potential addition to the national wild and scenic rivers system but further indicated that the studies prepared and transmitted to Congress pursuant to section 105(c) of the Production Act satisfied the study requirements in ANILCA. Congressionally authorized protections for these three rivers lapsed decades ago and Congress has not since authorized new studies of these or any other rivers in the NPR-A for potential designation as wild and scenic rivers. Unquestionably, the establishment of wild and scenic rivers within the NPR-A would constitute new CSUs. Managing rivers to the standards established in the WSRA without designation by Congress as wild and scenic rivers establishes defacto CSUs and leaves no doubt that the study was conducted for the "single purpose" of establishing CSUs or for related or similar purposes (ANILCA Section 1326(b)). In fact, Section 5(d)(1) of the WSRA specifically identifies the purpose of the studies is to identify "…additional wild, scenic and	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	recreational river areas…" Whether BLM recommends these rivers to Congress for designation, as under Alternative B, or manages the rivers as defacto CSUs, both actions violate ANILCA Section 1326(b) because the studies conducted by BLM were not authorized by Congress. For all the above reasons, the State does not support the recommendations under Alternative B, nor the protective management applied to the 12 "eligible" rivers in Alternatives A, C and D. We request the IAP remove all management intent to protect the status of the rivers determined eligible or suitable in the 2002 and 2012 wild and scenic river studies as carried forward in the revised IAP. The requirements of other existing state and federal authorities, such as the Clean Water Act, provide adequate protection of these rivers (see the IAP Appendix D for other applicable authorities). The added administrative status as "eligible" wild and scenic rivers is not only inconsistent with ANILCA, the WSRA, and BLM policy, it is also unnecessary and only serves to obfuscate the appropriate management of rivers in the NPR-A pursuant to the Production Act, as amended, and other relevant federal and state environmental laws and regulatory authorities.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	43	ANILCA/ Section 810	BLM is required to conduct an 810 analysis prior to lease sales. This obligation is separate and distinct from the Section 810 analysis BLM is preparing for the IAP. The Section 810 analysis BLM prepares for the IAP is for a wholly different decision related to the overall management of the Reserve, and does not exempt BLM from needing to conduct an 810 analysis for specific lease sales that occur later in time. BLM's own policy recognizes that there is no equivalent to a categorical exclusion for 810 analyses and that such an analysis must take place for all land use actions; a Section 810 analysis is required even where BLM proceeds under NEPA via a DNA.239 This is particularly important given that the lease sale stage is the point at which BLM states it ties its hands and can no longer say "no" to future development proposals.240 BLM is required to analyze in detail these impacts and ways to reduce them in an 810 analysis specific to individual lease sales. The DEIS fails to acknowledge this legal obligation. BLM should address this legal deficiency and make its obligation to conduct 810 analysis for specific lease sales clear in the DEIS. ------------ 239 Instruction Memorandum at 1-2 ("There are no categorical exclusions for 810 evaluations. Therefore, Section 810 Evaluations are required for all land use actions on public lands. Section 810 Evaluations must be conducted in conjunction with NEPA categorical exclusion documentation (CXs) and	This IAP/EIS and associated ANILCA 810 evaluation considers the impacts of lease sales. If these analyses remain adequate at the time of future lease sales, they can support NEPA and ANILCA 810 compliance. Prior to each lease sale, the BLM will analyze the continuing adequacy of the analyses through a determination of NEPA adequacy (DNA).

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(see above)	*(see above)*	*(see above)*	*(see above)*	43 *(cont.)*	*(see above)*	with determinations of NEPA adequacy (DNAs).”). 240 See, e.g., GMT2 ROD at 8 (“BLM cannot select [the no action] alternative as its decision for GMT2. Once issued, oil and gas leases provide a right of development, subject to reasonable regulation.”).	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	54	ANILCA/ Section 810	BLM's Alaska National Interest Lands Conservation Act (ANILCA) section 810 analysis is inadequate because it does not consider alternatives that would reduce impacts to subsistence and because its analysis of effects to subsistence is deficient.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.
Donahey	Leah	Alaska Wilderness League	29320	42	ANILCA/ Section 810	BLM also illegally bypasses conducting an analysis of subsistence impacts subsequent to the adoption of the IAP at the lease sale stage, in violation of Section 810 of ANILCA. Section 810 of ANILCA requires BLM to analyze the potential impacts to subsistence and ways to eliminate or reduce those impacts when leasing: In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . [BLM] shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes.233 ----------- 233 16 U.S.C. § 3120(a) (emphasis added).	This IAP/EIS and associated ANILCA 810 evaluation considers the impacts of lease sales. If these analyses remain adequate at the time of future lease sales they can support NEPA and ANILCA 810 compliance. Prior to each lease sale, the BLM will analyze the continuing adequacy of the analyses through a determination of NEPA adequacy (DNA).

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Donahey	Leah	Alaska Wilderness League	29320	263	ANILCA/ Section 810	A number of the leases also extend into the area BLM is proposing to make off limits to leasing under Alternative B. BLM needs to revise its analysis under Alternative B and elsewhere to account for this change. As BLM has noted in its analysis, the leasing restrictions under Alternative B and elsewhere will not restrict or apply to existing leases.463 This raises serious questions about how meaningful protections are likely to be if significant areas, such as this new block, are already leased. BLM also needs to consider how this shift impacts other parts of its analysis, such as its analysis of the potential impacts to subsistence users around Atqasuk. In BLM's Section 810 analysis, BLM recognizes that "[o]il and gas leasing and development within the area of medium development potential could affect harvester access, resource availability, and resource abundance for Atqasuk and could lead to a situation similar to that seen in Nuiqsut where the community is 'boxed in' by development."464 The latest lease sale and the activities that will foreseeably occur from industry moving ahead with exploration and other activities on these leases have the potential to make this a reality for Atqasuk. BLM needs to update its analysis to consider these foreseeable impacts throughout the DEIS.	The Final IAP/EIS was updated to account for leases that have already been sold. Impacts on the community of Atqasuk are accounted for in the analysis and in the ANILCA 810 evaluation. The BLM acknowledges that there will be impacts to subsistence uses under all alternatives. It is not possible to have development without impacts. However, there can be an impact to subsistence uses without it rising to the level of a significant restriction. A significant restriction is defined as "... a substantial reduction in the opportunity to continue subsistence uses of renewable resources. Substantial reductions in the opportunity to continue subsistence uses generally are caused by: large reductions in the abundance, or a major redistribution of resources; extensive interference with access; or major increases in the use of those resources by non-subsistence users." Although there may be impacts to resource abundance, availability and user access under all alternatives, these impacts do not rise to the level of a significant restriction for all alternatives. See Appendix E for more information.

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Schell	John	ConocoPhillips Alaska	29272	20	ANILCA/ Section 810	ANILCA 810 Evaluation The revised IAP/EIS preliminary findings in the ANILCA Section 810(a) evaluation significantly deviate from the 2012 IAP/EIS ANILCA 810 analysis without presentation of new information to support this change. In the absence of relevant new information, there is no basis for a significant deviation from the lawful 2012 analysis. ConocoPhillips recommends that BLM revise the analysis to hold more closely to the analysis completed in 2012. In the final 2012 IAP/EIS, the ANILCA 810 findings for alternatives A, B-1, B-2 and even C (which would have made 17.9 million acres available for oil and gas leasing) were that they "would not significantly restrict subsistence uses by communities in or near the NPR-A (Anaktuvuk Pass, Atqasuk, Barrow, Nuiqsut, Point Lay, and Wainwright)." The 2012 findings recognized that adequate stipulations and BMPs were incorporated into the alternatives (then designated A, B-1, B-2 and C) to ensure that significant restrictions to subsistence uses and needs would not occur. The ANILCA 810 analysis in the draft IAP/EIS currently out for comment does not give similar weight to protection measures designed to mitigate subsistence impacts. BLM guidance (BLM IM AK-2011-008) specifically provides that a "proposed action and/or alternatives would be considered to significantly restrict subsistence uses if, after consideration of stipulations or protection measures … included as	The ANILCA 810 analysis considered new information since the 2012 IAP/EIS. In particular, there is new information about how recent developments (CD-5, GMT1, and GMT2) have impacted harvest patterns. This data is reported in the SRB&A Caribou Subsistence Monitoring Reports and was incorporated in the ANILCA 810 analysis. Additionally the cumulative case has been revised to account for recent discoveries, both within and near the NPR-A. Although every development permitted in the NPR-A has included subsistence ramps and pullouts as a design feature, there is no requirement under Alternative A for a project proponent to do so. The BLM cannot assume that such a design feature or requirement would be included as part of every future development.

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(see above)	*(see above)*	*(see above)*	*(see above)*	20 *(cont.)*	*(see above)*	part of each alternative, it can be expected to result in a substantial reduction in the opportunity to continue subsistence uses….”(emphasis added) Thus, BLM should consider the stipulations and other protection measures in the ANILCA 810 analysis. The revised IAP/EIS does not cite any new information to support a change from the 2012 findings. Alternative A (the status quo) finding of “may significantly restrict subsistence uses for the community of Nuiqsut” is based on reductions in the availability of subsistence resources “caused by alterations of their distribution” and limitations on subsistence access. However: * BLM fails to note that the Nuiqsut caribou harvest is very strong and has not experienced a decline as a result of NPR-A exploration and development since 2012. * BLM fails to include any new information or data to support that NPR-A development (with existing best practices and BMPs) causes an alteration of subsistence resources and instead bases the conclusion on potential changes in distribution due to “skittish” behavior of caribou. * While the finding of limitation of subsistence user access does acknowledge the countervailing effects of hunter's use of gravel roads, BLM dismisses this benefit based on data that only included three months of the GMT1 road being in place (SRB&A 2019). Since that time, hunter's use of the GMT1 road and now the GMT2 road has significantly increased (as told by	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	20 *(cont.)*	*(see above)*	many hunters) access to caribou resources. The current IAP/EIS also dismisses this countervailing benefit since there is no requirement or BMP in Alternative A to allow subsistence users access; however, BLM has the authority (exercised in GMT1 and GMT2 supplemental BMPs) to require subsistence access as a supplemental BMP or ROP in a record of decision. The 2012 finding for the cumulative case in conjunction with all alternatives was that it would result in a reasonably foreseeable and significant restriction of subsistence use for all the NPR-A communities; however, the cumulative case considered some potentially large oil and gas projects spread across the NPR-A that are no longer foreseeable (road and pipeline between Umiat Area and Dalton Highway, Chukchi Sea development, and Beaufort Sea development), as well as the commercial gas pipeline, for which development efforts and interest has decreased since that time.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	146	ANILCA/ Section 810	The revised IAP/EIS preliminary findings in the ANILCA Section 810(a) evaluation significantly deviate from the 2012 IAP/EIS ANILCA 810 analysis without presentation of new information to support this change. In the absence of relevant new information, there is no basis for a significant deviation from the lawful 2012 analysis. ConocoPhillips recommends that BLM revise the analysis to hold more closely to the analysis completed in 2012.	The ANILCA 810 analysis considered new information since the 2012 IAP/EIS. In particular, there is new information about how recent developments (CD-5, GM1, and GMT2) have impacted harvest patterns. This data is reported in the SRB&A Caribou Subsistence Monitoring Reports and was incorporated in the ANILCA 810 analysis.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	57	ANILCA/ Section 810	The ANILCA 810 analysis's preliminary conclusion that Alternative C would have less impacts on subsistence user access is not credible.	The ANILCA 810 analysis has been updated to state that all alternatives may significantly restrict access to subsistence resources for the community of Nuiqsut.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	15	ANILCA/ Section 810	BLM's ANILCA section 810 Analysis fails to consider alternatives that would reduce impacts to subsistence.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	20	ANILCA/ Section 810	BLM also does not include interference with hunter access as a restriction for Alternative C.42 All of the avoidance impacts described above apply to Alternative C, and will be more severe because Alternative C makes more subsistence area available for oil and gas leasing. Alternative C also “increase[s] the potential for impacts to resource abundance.”43 BLM must acknowledge this significant restriction as well, or explain why Alternative C will not affect resource abundance. 42 Draft EIS, App. E at E-33. 43 Id. at E-32.	The ANILCA 810 analysis has been updated to state that all alternatives may significantly restrict access to subsistence resources for the community of Nuiqsut. Although there may be some impacts to resource abundance under Alternative C, they do not rise to the level of a significant restriction. See Appendix E for more details.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	12	ANILCA/ Section 810	The Draft EIS's ANILCA section 810 analysis is flawed. BLM's ANILCA section 810 analysis is inadequate because it does not consider alternatives that would reduce impacts to subsistence and because its analysis of effects to subsistence is flawed in several key respects.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.

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Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	19	ANILCA/ Section 810	BLM concludes that Alternative B "is not expected to result in extensive interference with access."37 But this alternative plainly will limit access, as BLM's own discussions show. According to BLM: In addition to affecting resource availability, noise, traffic, and human activity may also affect user access by deterring subsistence users from their usual harvesting areas. Avoiding subsistence use areas due to development has been documented in Nuiqsut (SRB&A 2018b) and would likely occur for Utqiagvik, Atqasuk, Wainwright, and Point Lay harvesters, if oil and gas or infrastructure development occurs in their harvesting areas. Residents may experience discomfort hunting in the presence of outsiders; they may avoid hunting near areas of high air or ground traffic because of a perceived or actual reduction in the availability of subsistence resources. Also, they may avoid hunting near human activity due to safety concerns or may consider noise pollution and increased human activity to degrade the subsistence experience.38 37 Id. at E-30. 38 Draft EIS at 3-238. The draft EIS explains that the Required Operating Procedures BLM relies on in its subsistence determination to say that access will not be affected are not entirely effective: "impacts to access may still occur due to some harvesters avoiding industry."39 Perceived contamination may also interfere with hunter access; according to BLM, "residents [may] avoid[] the planning area or such	The ANILCA 810 analysis has been updated to state that all alternatives may significantly restrict access to subsistence resources for the community of Nuiqsut. Pursuant to BLM Instruction Memo 2011-008, only physical and legal restrictions on access are considered when determining whether there may be an extensive interference with access.

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(see above)	*(see above)*	*(see above)*	*(see above)*	19 *(cont.)*	*(see above)*	resources as caribou, marine mammals, and waterfowl, that migrate through the planning area and are later harvested elsewhere. Avoiding subsistence foods due to contamination concerns is well documented."40 Residents may also avoid industrial areas due to legal and regulatory barriers, as well as "[m]iscommunication surrounding rules and restrictions around future oil and gas facilities and unpleasant interactions with oil field workers, as has been documented in the case of Nuiqsut."41 Alternative B will clearly interfere with access. 39 Id. at 3-239. 40 Id. at 3-243. 41 Id. at 3-244.	*(see above)*
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	14	ANILCA/ Section 810	BLM's Tier 1 ANILCA section 810 analysis is flawed in several respects. First, the alternatives analysis is flawed because it does not evaluate alternatives that would reduce subsistence impacts. Second, the effects analysis is flawed because it omits some significant restrictions on subsistence uses that will occur from BLM's action.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources. Significant restrictions on subsistence user access, resource availability, and resource abundance were disclosed in the ANILCA 810 evaluation. See Appendix E for more details.

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Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	16	ANILCA/ Section 810	BLM considered a no-action alternative and three alternatives, all of which may significantly restrict subsistence uses for Nuiqsut.31 None of these alternatives reduces or eliminates subsistence impacts. As discussed, Alternative B does not actually reduce impacts to subsistence because the lands it purports to protect are either already under lease or not likely to be leased. Section 810 requires an agency to consider all feasible alternatives, not just those that satisfy all of the project proponent's wishes.32 Many of the alternatives suggested in the Alternatives section of conservation groups' letter would reduce impacts to subsistence. BLM should consider these alternatives as part of its ANILCA evaluation, as well as its NEPA analysis. 31 Draft , App. E at E-25 (Alternative A), E-30 (Alternative B), E-33 (Alternative C), E-35 (Alternative D). 32 See City of Tenakee Springs, 915 F.2d at 1311.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	22	ANILCA/ Section 810	BLM's ANILCA section 810 analysis fails to consider alternatives that would reduce impacts to subsistence and fails to recognize multiple significant restrictions on subsistence. BLM must correct these deficiencies and hold new ANILCA hearings after it publishes a corrected ANILCA section 810 analysis.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources. Significant restrictions on subsistence user access, resource availability, and resource abundance were disclosed in the ANILCA 810 evaluation.

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Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	12	ANILCA/ Section 810	* BLM does not have the authority under the NPR PA or the Alaska National Interest Land Conservation Act (ANILCA) to designate any rivers as Wild and Scenic or consider any areas of the NPR-A as wilderness. The NPR-A should be managed in a manner consistent with the express intent of Congress under the NPR PA and honor the agreement forged between the State of Alaska and the federal government under ANILCA. In general, BLM should only add new operational requirements and limitations after they have performed a gap analysis on the effectiveness of the existing 270 or so best management practices and stipulations.	Designation of such units must be made by Congress. None of the IAP/EIS alternatives consider making recommendations for Wilderness designations. Section 5(d)(1) of the Wild and Scenic Rivers Act provides: “In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials.” Also, the NPRPA does not exempt the NPR-A from the Wild and Scenic Rivers Act, and Section 1326(b) of ANILCA does not apply because the IAP/EIS is not a single-purpose study, as described therein. Thus, the BLM properly reviewed Wild and Scenic River suitability in this planning effort. NEPA requires consideration of potential mitigation measures.

Z.3.5 Baseline Data

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	29	Baseline data	There is a substantial amount of missing or out of date information relevant to reasonably foreseeable adverse impacts of adopting a new management plan for the Reserve.166 Additional information is required for many critical resources to fully evaluate the impacts of oil and gas activities, develop and compare alternatives, and develop necessary stipulations or ROPs for leasing or subsequent oil and gas activities to protect conservation and subsistence values in the Reserve. ---------- 166 See John M. Pearce, et al., U.S. Department of the Interior, U.S. Geological Survey, Summary of Wildlife-Related Research on the Coastal Plain of the Arctic National Wildlife Refuge, Alaska, 2002-17, Open-File Report 2018-1003 (2018) [2018 USGS Report] (providing a simply survey of current information and identifying some necessary updates or additional studies); see also Janet C. Jorgenson, et al., U.S. Department of the Interior, U.S. Geological Survey, Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries, USGS/BRD/BSR-2002-0001 (2002).	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period has been reviewed and included as appropriate in the Final IAP/EIS.

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Donahey	Leah	Alaska Wilderness League	29320	75	Baseline data	BLM also needs consider the revised estimates and update its minimum bid levels for lease tracts in the Reserve. BLM is continuing to use outdated information about the high and low potential areas in the Reserve, which in turn is reflected in the minimum bid levels BLM sets for the Reserve. BLM should update these estimates and the minimum bid levels to reflect current information about the likely resources associated with different tracts.	This IAP/EIS does not make decisions regarding bids. The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period has been reviewed and included as appropriate in the Final IAP/EIS. The maps in Appendix A have been updated to show all currently held leases.
Epstein	Lois	Anchorage	27911	1	Baseline data	So what's confusing to me is this particular slide which you said was very important in terms of developing the whole analysis. If today's lease sale was just a few weeks after the draft EIS came out, was held, would this whole analysis look differently? It seems to me that it's inconsistent with what happened today on the lease sales, inconsistent with this analysis. So either you hold the analysis and don't hold the lease sale or you wait to issue the analysis after the lease sale. It seems like a big problem. I was wondering if you could talk about the thinking of the timing and having both those things happening simultaneously because you do end up with a conflict.	Land management actions do not stop while a plan is in review. All lease sales since 2013 comply with the 2013 IAP ROD until a new ROD is signed. The RFD was updated to reflect all currently held leases.

Z.3.6 Best Available Science

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hawkins	Donna	_	27182	1	Best available science	There are indications throughout your summary that indicate that you faced time pressures in preparing this report. One such example is in section 3.3.4 when referring to the impact analysis for birds; " For most actions in the planning area, potential impacts can be described only qualitatively, either because resource and impact data are unavailable or because project-specific details are uncertain or unknown at the time of analysis...". You further summarize stark disclaimers in section 3.5 which indeed are sobering. We (and You) do not know the full and serious consequences to the unavoidable ravages of oil and gas development in the NPR-A. The people of the land deserve to have a clearer understanding of the negative consequences so that they can make informed choices.	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate.

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Wrinn	Dan	Ducks Unlimited, Inc.	29258	1	Best available science	This analyses and manuscript (Morton, A., D.J. Fehringer, R.D. MacLeod, F.A. Reid, R.A. Stehn, D.A. Yokel, J.F. Payne, and R.G. Kempka. 1998. Integrating satellite inventory and wildlife species distribution on the Arctic Coastal Plain. Pages 135-142 in Fifth Int. Conf. Remote Sensing Marine Coastal Environ., San Diego, CA) demonstrated that there were key complexes of wetlands that were critical to breeding and molting waterfowl and included Teshekpuk Lake, the area north of the Lake, the area west of the Lake, and the Ikpikpuk River Delta. To conserve key waterfowl habitat, these areas should be avoided.	The Teshekpuk Lake Special Area and river deltas are clearly important breeding and post-breeding areas for waterfowl, shorebirds, and other species (Andres et al. 2012; Bart et al. 2013; Amundson et al. 2019; Flint and Thomson 2018), and the IAP/EIS acknowledges that importance and uses density distribution of species to evaluate the importance of areas affected by leasing and development. The referenced paper (Morton et al. 1998) reports habitat selection by three species of eiders and long-tailed ducks, highlighting the importance of wet and flooded tundra, habitats that are used by more species of waterbirds and shorebirds than moist and dry habitats (Derksen et al. 1981; Cotter and Andres 2000; Andres et al. 2013; Bart et al. 2013; Saalfeld et al. 2013). For summaries see the Willow Master Development Plan DEIS (BLM 2019, Section 3.11, Birds). The IAP/EIS addresses programmatic options and cannot avoid specific habitats as there are no project footprints proposed.

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Donahey	Leah	Alaska Wilderness League	29320	1	Best available science	On behalf of the above-listed organizations and our millions of members and supporters, please accept these comments on the draft Environmental Impact Statement (draft EIS or DEIS) for the National Petroleum Reserve-Alaska's (Reserve or NPR-A) Integrated Activity Plan (IAP).2 We are concerned that the Bureau of Land Management (BLM) is barreling ahead with its plan to open vast areas to additional oil and gas activity, regardless of the impacts to the climate, communities, fish and wildlife, and special places in the Reserve. It is inappropriate for BLM to revise the 2013 IAP to reduce protections when science and new information since the adoption of that IAP demonstrate the need to maintain, if not enhance, protections. We ask BLM not to open additional areas in the Reserve to oil and gas leasing and to maintain the strongest possible protections for Special Areas and other values. ----------- 2 We are submitting a compilation of the studies and other cited documents along with the full version of this comment letter on the enclosed thumb drive.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Girard	Jessica	Anchorage	27912	1	Best available science	When you're talking about the best available science, I wonder if it's already listed or will be incorporated with --the IPCC just came out with their report that said if we don't take aggressive climate policy action in the next 17 months, we will not be able to continue to keep temperatures from rising below the 1.5 degrees Celsius. Curious if that's in the report or if it will be added.	The new information was reviewed and updated in the Final IAP/EIS, as appropriate.

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Lavin	Pat	Defenders Of Wildlife	29308	9	Best available science	we encourage BLM to review a recently published study critiquing three similar analyses conducted for recent proposals in Alaska, including one done by BLM in the Coastal Plain leasing EIS.3 The study indicates that quantitative estimates of the number and volume of spills of different substances are quantifiable and can be predicted on the basis of known information. BLM should ensure that the IAP EIS quantifies this risk based on the most complete and updated information regarding both chronic small spills and large spills on the north slope. 3 Lubetkin, The tip of the iceberg: Three case studies of spill risk assessments used in environmental impact statements (2019) Marine Pollution Bulletin, https://doi.org/10.1016/j.marpolbul.2019.110613.	New information presented during the public comment period was reviewed and included, as appropriate, in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Adams	Jim	National Parks Conservation Association	29262	10	Best available science	The new study also reveals caribou avoidance of infrastructure beyond the sensitive calving period, including post calving and mosquito harassment. While avoidance distances are reduced during these periods compared to during calving, that they still exist is notable. The authors comment that “caribou use of developed landscapes does not imply that infrastructure has no influence on their behavior.” The DEIS assumes infrastructure will have beneficial effects for caribou seeking to escape insect harassment. Observation of avoidance of infrastructure during the mosquito harassment period greatly questions this assertion. The DEIS should be updated to reflect this new scientific information. 53.Johnson et al. in press. 54.Johnson et al. in press at 8. 55.E.g., Table 3-29, 1 DEIS at 3-161	The Final IAP/EIS was updated to include a discussion of Johnson et al. (2019). When assessing the impacts of insect harassment, it is important to distinguish between the impact of mosquitoes in late June and early July and the impact of oestrid flies, which dominate caribou behavior during late July and early August. During the mosquito season, caribou may avoid areas within 1 km of roads (Johnson et al. 2019), but Central Arctic Herd caribou also are highly motivated to cross roads and do cross properly designed roads frequently during this season (with the caveat that more delays and deflections could occur with caribou with less exposure to infrastructure and could be more common if hunting is common on roads). During periods of oestrid fly harassment (not analyzed by Johnson et al. 2019), Central Arctic Herd caribou do select roads and pads for fly-relief habitat (Pollard et al. 2006). [Pollard, R. H., W. B. Ballard, L. E. Noel, and M. A. Cronin. 1996. “Parasitic insect abundance and microclimate of gravel pads and tundra within the Prudhoe Bay oil field, Alaska, in relation to use by caribou, *Rangifer tarandus granti*.” *Canadian Field-Naturalist* 110: 649–658.]

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Adams	Jim	National Parks Conservation Association	29262	9	Best available science	A newly published study of movement responses of the CAH to infrastructure in the Prudhoe Bay and Kuparuk areas found that "female caribou exhibited avoidance responses to infrastructure during all time periods" in the early summer. Adult female caribou reduced use of habitat within 5 km of infrastructure during the calving season. These findings demonstrate that previously reported patterns of caribou displacement from roads in the CAH have not dissipated over time (as would be expected if habituation were occurring), but instead continue to be demonstrated. The paper concludes that "[h]abituation …does not appear to have occurred for caribou in the CAH during the calving period." These findings align with other recent studies of caribou, such as a paper from Canada that found avoidance of long-established infrastructure, "suggesting that long-term habituation is unlikely." The IAP/EIS should be updated to reflect these studies and the consistent lack of demonstration of habituation for caribou. 50.Johnson et al. in press. 51.Johnson et al. in press at 8. 52.Plante et al. 2018 at 138.	The Final IAP/EIS was updated to include a discussion of Johnson et al. (2019). The IAP/EIS does acknowledge that habituation of calving caribou to active roads and pads is unlikely to occur and that some displacement of maternal caribou from roads is likely. The level of displacement declines after calving, with different results indicated in different studies for the post-calving period. Johnson et al. (2019) found that caribou used areas within 1 km of roads less than expected during the mosquito season, but Central Arctic Herd caribou are highly motivated to reach mosquito relief habitat in late June and early July and cross roads frequently (Prichard et al. 2019). During late July and early August, Central Arctic Herd caribou often use roads and pads for oestrid fly relief habitat (Pollard et al. 1996). Therefore, the displacement and tolerance of infrastructure has to be assessed seasonally.

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Bachal	Gene	Wainwright	29321	1	Best available science	How old are the studies you guys are using? When were these studies done? For example, you mentioned the 2017 studies. There's big changes from 2017 to what happened this fall with the caribou migrations. And the calf survival rates is -- those numbers have significantly changed. I think you guys need to go back and get the latest information, especially from the hunters of what they're seeing.	There is a large amount of interannual variability in caribou seasonal distribution patterns. The IAP/EIS uses the most current available data but looks primarily at long-term patterns of seasonal distribution. Caribou movement patterns are influenced by weather and snow, so it is possible that typical patterns could change due to climate change, but these changes are difficult to predict.
MacRae	Steve	Wainwright	29326	1	Best available science	How do you incorporate the latest studies into the report? Is there a quarterly review period or how does that work when somebody publishes a new study that may contradict or contraindicate something that's been decided?	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period was reviewed and included, as appropriate, in the Final IAP/EIS.
Robards	Martin	Wildlife Conservation Society	29189	3	Best available science	BLM notes that "[a]ctivities associated with abandonment and reclamation that could have direct and indirect impacts on vegetation include construction of ice roads, off-road tundra travel, removal of gravel roads and pads, removal of vertical support members and power poles, and application of rehabilitation treatments." BLM goes on to state that "[t]he direct impacts of gravel removal and rehabilitation treatments would likely be beneficial, resulting in more rapid vegetation recovery." However, they subsequently point out that "[p]otential indirect impacts of gravel removal include changes in the soil thermal regime (leading to altered hydrology) and the introduction of NNIS through contaminated equipment or seed" and that "impacts resulting in permanent loss	The existing text in Section 3.3.1 distinguishes between direct and indirect impacts of gravel removal and rehabilitation. The Final IAP/EIS was modified to clarify that the direct impacts are expected to be beneficial, but indirect impacts may include a change in thermal regime and hydrology, as well as introduction of NNIS. In addition, text was added to summarize the rehabilitation treatments that might be applied and what their potential impacts would be. The Final IAP/EIS has been updated to clarify that complete rehabilitation is not expected to occur within this time frame. The abandonment and reclamation "could take from 2 to 5 years" is quoted from the 2012 IAP/EIS. The Abandonment and Reclamation

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(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	of aquatic habitat through the placement of fill or excavation are not expected to recover naturally and thus, specialized treatments will be proposed to recover some ecological function (NRC 2003)." It is our understanding that such specialized treatments have not been resolved or agreed upon for such vast areas of impact. Consequently, suggesting that typical abandonment and reclamation "could take from 2 to 5 years following the termination of production (BLM 2012)" willfully ignores the scientific literature on the topic (including the National Academy of Sciences2), negates conclusions specific to the Alaska North Slope by the Government Accounting Office (GAO)3, and vastly underestimates the task at hand which is particularly problematic given BLM's own experience with this subject4. Therefore, WCS urges BLM to include the best available science and information on Dismantlement, Removal, and Restoration (DR&R), as well as significantly greater levels of specificity on what is expected for reclamation so that long-term impacts can actually be considered for the different alternatives.	section (within the Vegetation section) primarily addresses the potential impacts from reclamation activities. As noted above, the Final IAP/EIS has been updated to briefly summarize treatments that might be applied, possible impacts, and the timeline for rehabilitation. The acreages of vegetation that would be lost are presented in the IAP/EIS, and evaluation of impacts should be based on those numbers; there is no assumption that any of these areas will be rehabilitated within a particular period of time.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Robards	Martin	Wildlife Conservation Society	29189	2	Best available science	Another key concern for WCS is the vague and frequently inconsistent description of "Abandonment and Reclamation" or what is frequently termed "Dismantlement, Removal, and Restoration" (DR&R). The EIS both ignores the extensive literature on this subject and provides no plan for which an assessment of impacts can be made. Without a clear description of a DR&R plan, the long-term impacts of any of the provided scenarios cannot be adequately assessed.	ROP G-1 requires the permittee to develop and implement an Abandonment and Reclamation Plan approved by the BLM.

Z.3.7 Biological Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
McGuire	Rebecca	Alaska Shorebird Group	27169	14	Biological Resources	We are very troubled that there is an exemption allowing for community infrastructure throughout the NPR-A under all action alternatives. This exemption will certainly compromise the biological integrity of natural habitats in any protected areas. Community infrastructure may include roads, power lines, fuel pipelines, and communications systems, including a "road connecting Nuiqsut and Utqiagvik that is routed north of Teshekpuk Lake".59 As stated above, construction of roads allow public and hunter access to areas currently difficult to reach, disturbing sensitive resources such as flightless, molting Brant that use the area north of Teshekpuk Lake. This area is of global significance for wildlife and has very few subsistence cabins currently. In addition, newly constructed roads, power lines, pipelines, etc. attract natural predators that use these	Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

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(see above)	*(see above)*	*(see above)*	*(see above)*	14 *(cont.)*	*(see above)*	structures to nest, den and perch upon, potentially leading to higher predation of avian and mammalian prey.60 Elevated power lines have the added disadvantage of increasing the likelihood of bird strikes when visibility is low. We recognize that stipulations are in place to try to minimize use of new structures by predators. However, we feel it is virtually impossible to mitigate all use in such a sensitive area. Consequently, we anticipate depredation of wildlife will increase. 59 NPR-A DIAP/EIS, p. 2-3. 60 Ritchie, R.J. 1991. Effects of oil development on providing nesting opportunities for Gyrfalcons and Rough-legged Hawks in Northern Alaska. Condor 93:180-184.	*(see above)*
ZALAR	MARY	–	27337	2	Biological Resources	None of the alternatives offered provide adequate protection for the Teshekpuk Lake region. This area is a globally significant Important Bird Area for its very high density of many bird species of concern. Teshekpuk is an important goose molting area and nesting area for migratory birds. A several-mile-wide coastal area is designated as critical habitat for denning polar bears. Management plans must seriously consider global responsibility in supporting wildlife populations. The Teshekpuk Lake region should not be open to leasing or development.	Alterative B considers making the entire Teshekpuk Lake Special Area unavailable for leasing and new infrastructure, with the exception of two north-south pipeline corridors.

Z.3.8 Birds

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	4	Birds	On page 3-152, the DEIS states that cumulative "impacts will likely grow ... as infrastructure extends westward from the Alpine Satellites." They would also increase if a community road is built through the TLSA to connect Nuiqsut with Utqiagvik and/or Atqasuk. The DEIS states that such a road would be allowed under all action alternatives. The FEIS must estimate the probability that the resulting impacts of such a road will result in population-level effects on brant.	The Final IAP/EIS has been updated to expand the discussion of a community road and to discuss qualitatively the risk to molting brant; however, without a specific road proposal, it is impossible to estimate the effects on the brant population at this time. Should a community road be constructed north of Teshekpuk Lake, the potential cumulative impacts on lakes and coastal wetlands used by molting and brood-rearing brant and other geese could be at least as severe as those from oil development due to disturbance, injury, and mortality from traffic and subsistence hunting. Because a large proportion (22%) of the world population of brant congregate in the Teshekpuk Lake area and are sensitive to human disturbance, the potential for cumulative adverse effects at the population level is high.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	1	Birds	The DEIS (pg. 3-128) states that 22% of the global population of brant uses the Teshekpuk Lake area during their molt. During this flightless period, brant are especially sensitive to disturbance. A "Goose Molting Area" (GMA) has been defined in which brant and other molting geese receive greater protection than outside that area. Under alternative A, the GMA is closed to leasing and as such provides adequate protection for molting brant and other species found therein. Alternatives Band C also close the area to leasing but allow a pipeline corridor through it to transport oil from potential offshore development to the existing pipeline network. Although there would presumably be little human activity associated with such a pipeline during the period geese are present, such a structure would provide a "perch" for raptors seeking to prey on geese causing geese to cease feeding/resting and to flee onto a nearby lake. As the DEIS states, such disturbance may prevent geese from acquiring sufficient calories to migrate on time in the fall, with a consequent reduction in goose survival. The Final Environmental Impact Statement (FEIS) must estimate the probability that this could lead to a lower goose population or even to local extinction.	The Final IAP/EIS has been updated to discuss the attraction of aerial predators to pipelines under those alternatives, as they would affect molting and brood-rearing geese in the Teshekpuk Lake Special Area. Under Alternative B, two north-south pipeline corridors, undefined in location, would provide rights-of-way from coastal oil development to pipelines in areas open to infrastructure. Although there would not be high levels of human activity in these corridors, pipelines would require maintenance, would increase the risk of leaks and spills, and would attract avian predators using pipelines as perches. Predators would increase mortality and egg loss and would cause disturbance to molting and brood-rearing geese, possibly leading to separation of broods and decreased foraging during crucial growth and pre-migratory phases.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	2	Birds	Alternative D would open the entire GMA to leasing, although portions of it would allow no surface occupancy within 0.5 miles of molting lakes. Past studies have clearly shown that human activity at much greater distances than this can send molting geese onto the lakes and away from their foraging/resting habitat. Again, the FEIS must estimate the probability that such a scenario may result in goose population reduction. It should not assume that geese can be displaced without consequences.	The Final IAP/EIS has been updated to discuss the impacts of development under Alternatives D and E, with respect to the 0.5-mile setback around molting lakes. The analysis of alternatives was updated to estimate numbers of pre-nesting brant and brant colonies and the areal extent of the brant molting area (85% brant lakes) exposed to development under all alternatives.
McGuire	Rebecca	Alaska Shorebird Group	27169	6	Birds	The draft EIS dramatically simplifies the impact climate change can have on shorebirds and land birds, focusing on the potential positive effects such as species benefitting from warmer, longer summers by nesting earlier and more successfully, and having increased opportunities to renest following nest failure.25 However, the draft EIS neglects abundant data documenting broad-scale changes and more variable Arctic conditions that negatively impact birds. A host of scientifically documented, climate-related stressors germane to wildlife are not considered. For example: (1) Ecological niche models suggest suitable breeding conditions for shorebirds will decrease with time, forcing birds to adapt, or more likely move north and east to areas in the Eurasian and Canadian Arctic islands.26 (2) Important habitats, such as low-centered polygons and low-lying basins,27 are already drying up,28 reducing suitability for nesting shorebirds. (3) Rising sea levels, more severe coastal storms, and glacial melt rates are modifying sediments in	Many of the changes cited—shrubification, drying tundra, loss of lakes and ponds, trophic mismatches—were discussed. The BLM added text and citations to reinforce these points in the climate change section: Although melting of glaciers is increasing fine sediment transport, eventual loss of glaciers may reduce fine sediment on deltas where Chironomidae, an important prey of shorebirds and fish, are found (Churchwell et al. 2015). Another addition: Red knots breeding in the in years of early snow melt were smaller and had lower survival on non-breeding areas, due to shorter bills (van Gils et al. 2016). More of the suggested references were cited.

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	Arctic river deltas, which reduce invertebrates, a critical food for thousands of post-breeding shorebirds to fatten for successful southbound migration.29,30 (4) Shrubs and predators (i.e., Red Fox) are also expanding northward into Arctic tundra, making habitats less suitable and potentially more dangerous.31,32 (5) Earlier emergence of invertebrates resulting from earlier summers create a phenological mismatch33 that can reduce chick survival,34 and ultimately drive long-term population declines.35 (6) Greater variability in seasonal weather and dates of snowmelt can dramatically reduce breeding success in some years.36,37 25 NPR-A DIAP/EIS, p. 3-132. 26 Wauchope, H. S., J. D. Shaw, Ø. Varpe, E. G. Lappo, D. Boertmann, R. B. Lanctot, and R. A. Fuller. 2017. Rapid climate-driven loss of breeding habitat for Arctic migratory birds. Global Change Biology 23:1085-1094. 27 Cunningham, J. A., D. C. Kesler and R. B. Lanctot. 2016. Habitat and social factors influence nest site selection in Arctic-breeding shorebirds. Auk: Ornithological Advances 133: 364-377. 28 Liljedahl, A. K., J. Boike, R. P. Daanen, A. N. Fedorov, G. V. Frost, G. Grosse, L. D. Hinzman, Y. Iijma, J. C. Jorgenson, N. Matveyeva, M. Necsoiu, M. K. Raynolds, V. E. Romanovsky, J. Schulla, K. D. Tape, D. A. Walker, C. J. Wilson, H. Yabuki and D. Zona. 2016. Pan-Arctic ice-wedge degradation in warming permafrost and its influence on tundra hydrology. Nature Geoscience 9:312-318. 29 Churchwell, R. T. 2015. Stopover	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	ecology of Semipalmated Sandpipers (Calidris pusilla) at coastal deltas of the Beaufort Sea, Alaska. Ph.D. Dissertation, University of Alaska, Fairbanks. 30 Churchwell, R. T., S. J. Kendall, A. L. Blanchard, K. H. Dunton and A. N. Powell. 2016. Natural disturbance shapes benthic intertidal macroinvertebrate communities of high latitude river deltas. Estuaries and Coasts 39:798-814. 31 Tape, K., M. Sturm and C. Racine. 2006. The evidence for shrub expansion in northern Alaska and the Pan-Arctic. Global Change Biology 12: 686-702. 32 Elmhagen, B., D. Berteaux, R. M. Burgess, D. Ehrich, D. Gallant, H. Henttonen, R. A. Ims, S. T. Killengreen, J. Niemimaa, K. Norén, T. Ollila, A. Rodnikova, A. A. Sokolov, N. A. Sokolova, A. A. Stickney and A. Angerbjörn. 2017. Homage to Hersteinsson and Macdonald: Climate warming and resource subsidies cause red fox range expansion and arctic fox decline. Polar Research 36: 3. DOI:10.1080/17518369.2017.1319109 . 33 Saalfeld, S. T. and R. B. Lanctot. 2017. Multispecies comparisons of adaptability to climate change: A role for life-history characteristics? Ecology and Evolution 7:10492-10502. 34 Senner, N. R., M. Stager, and B. Sandercock. 2017. Ecological mismatches are moderated by local conditions for two populations of a long-distance migratory bird. Oikos 126:61-72. 35 van Gils, J. A., S. Lisovski, T. Lok, W. Meissner, A. Ozarowska, J. de Fouw, E. Rakhimberdiev, M. Y. Soloviev, T. Piersma and M. Klaassen. 2016. Body	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	shrinkage due to Arctic warming reduces Red Knot fitness in tropical wintering range. Science 352: 819-821. 36 Schmidt, N. M., J. Reneerkens, J. H. Christensen, M. Olesen, and T. Roslin. 2019. An ecosystem-wide reproductive failure with more snow in the Arctic. PLoS Biology, 17(10), e3000392. doi:10.1371/journal.pbio.3000392 37 Saalfeld, S.T., D.C. McEwen, D.C. Kesler, M.G. Butler, J.A. Cunningham, A.C. Doll, W.B. English, D.E. Gerik, K. Grond, P. Herzog, B.L. Hill, B.J. Lagassé, and R.B. Lanctot. 2019. Phenological mismatch in Arctic-breeding birds: impact of snow melt and unpredictable weather conditions on food availability and chick growth. Ecology and Evolution. DOI: 10.1002/ece3.5248. The aforementioned negative effects of climate change will compound stressors that birds encounter under the various development scenarios. Development results in further habitat loss, degradation, disturbance, enhanced predator numbers and other negative impacts. Therefore, the EIS must fairly evaluate how development will affect shorebirds in the context of on-going climate change, which is accelerated at northern latitudes and already threatening Arctic birds.	*(see above)*

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McGuire	Rebecca	Alaska Shorebird Group	27169	7	Birds	The importance of the NPR-A to Golden Eagles (Aquila chrysaetos) must be taken into consideration when assessing impacts to wildlife. Golden Eagles receive special protection under the Bald and Golden Eagle Protection Act (16 USC §§ 668-668d; 50 CFR § 22), which prohibits molesting, agitating, disturbing or taking these species, their parts, nests, or eggs without a Federal Permit. Disturbance includes decreasing productivity by substantially interfering with breeding, feeding, sheltering behavior, or causing nest abandonment in the current or subsequent year. Due to extra protections by law and the importance of the NPR-A to Golden Eagles, the EIS must take potential impacts to this species into consideration. At our request, the Fish and Wildlife Service Western Golden Eagle Team (contact: jessi_brown@gmail.com) recently summarized the best available data for Golden Eagles on the North Slope. The team analyzed GPS tracking data for 43 birds of multiple age classes trapped in six different states (including Alaska) and detected north of the Brooks Range. Key findings are listed below and illustrated in Figure 4: 1. 44% (19 of the 43 bird sample) were detected within NPR-A (Figure 4), including birds trapped in 4 of the 6 states where GPS tags were deployed (AK, NM, MT, WY). 2. 84% (16 of 19 birds) detected on the NPR-A were also detected in BLM Special areas and 63% (12 of 19) in adjacent State lands. Figure 4. GPS re-locations detected in the NPR-A for 19 of 43	New information has been reviewed and included, as appropriate. The BLM added text to the Affected Environment in Section 3.3.4 of the Final IAP/EIS: “Golden eagles tend to follow linear man-made features such as roads, and rail lines during spring migration, where there could be more carrion but also an increased risk of collision with vehicles and powerlines (Eisaguirre et al. 2019).” The BLM also added text in the section on Attraction to Human Activities and Facilities: “Golden eagles are attracted to linear structures while migrating (Eisenquirre et al. 2019), which could include oilfield roads and pipelines, increasing both the predation pressure on birds and nests of other species as well as injury and mortality to eagles from collisions with vehicles and structures.”

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	Golden Eagles tracked from Alaska, New Mexico, Montana, and Wyoming. Data represent multiple age classes. Individuals were tracked for single and multiple years. Darker areas indicate more transmitter fixes. The results described above underscore the potential importance of NPR-A habitat for North American Golden Eagles, as species that must be considered in impact analysis of the IAP. Multiple studies also document non-territorial or sub-adult Golden Eagles in the NPR-A,38,39,40,41 suggesting habitats in this region may provide important resources for these future members of Golden Eagle breeding populations.39 Finally, Golden Eagles movements elsewhere are associated with linear features such as roads, perhaps as a way to access carrion.42 Therefore, creating linear features in the NPR-A, such as pipelines, roads, or power lines, could put more eagles at risk, given proximity to proposed development, and/or increase predation rates on populations of avian and mammalian prey. 38 Ritchie, R. J., A. M. Wildman, and D. A. Yokel. 2003. Aerial surveys of cliff nesting raptors in the National Petroleum Reserve-Alaska, 1999, with comparisons to 1977. Technical Note 413, U.S.D.I., Bureau of Land Management, Fairbanks, Alaska. 39 Ritchie, B. 2014. Raptor surveys at lakes in the Foothill-Coastal Plain Transition, Colville to Kuk Rivers, NPR-A, Alaska, July 2012 and 2013. Unpublished report. ABR, Inc., Fairbanks, Alaska and Bureau of Land Management, Fairbanks, Alaska. 40 Shook, J. E. and R. J. Ritchie. 2017.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	Raptor surveys at lakes in the Foothill-Coastal Plain Transition, Colville to Kuk Rivers, NPR-A, Alaska, July 2016. Unpublished report. ABR, Inc., Fairbanks, Alaska and Bureau of Land Management, Fairbanks, Alaska. 41 McIntyre, C. L. and S. B. Lewis. 2017. Statewide movements of non-territorial Golden Eagles in Alaska during the breeding season: Information for developing effective conservation plans. Alaska Park Science, Vol. 17, Issue 1. National Park Service, Fairbanks, Alaska. 42 Eisaguirre, J. M., T. L. Booms, C. P. Barger, S. B. Lewis, and G. A. Breed. 2019. Step selection functions on energy landscapes reveal how linear features alter migration movement in a large soaring bird. bioRxiv (preprint server) DOI: http://dx.doi.org/10.1101/805374.	*(see above)*
McGuire	Rebecca	Alaska Shorebird Group	27169	8	Birds	Alaska supports 100% of the U.S. breeding population of Gyrfalcon (Falco rusticolus), Rough-legged Hawk (Buteo lagopus), and Snowy Owl (Bubo scandiacus), as well as large proportions of other raptor subspecies.43 Given the endemic nature of breeding populations, recent dramatic declines, and the importance of Arctic tundra as nesting habitat, other raptors must also be considered in any impacts analysis of the IAP. The Snowy Owl is on the Yellow Watchlist for Partners in Flight, which means it is a species of conservation concern at a continental scale with a declining population.44 The Short-eared Owl is also in steep decline, with a loss of 65% of the global population from 1970-2014.45 The U.S Fish and Wildlife Service (Region	New information has been reviewed and included, as appropriate. Although the PIF rates short-eared owls as a Watchlist species in North America, “moderately abundant or widespread, with declines or high threats,” it is increasing significantly (growth rate 1.08) on the ACP (Wilson et al. 2018). Snowy owls are stable to slightly increasing (growth rate 1.01) on the ACP, but it is rated as a Stewardship Species, with a high percentage of the western hemisphere population in a single biome (the Arctic) for North America. Both species are irruptive, breeding on the ACP when small mammal populations are high. As such, their distribution and temporal occurrence is unpredictable and not something for which the BLM can specifically manage. Small mammal

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	7, Migratory Bird Management) has recorded the locations of Snowy Owls and Short-eared Owls during aerial surveys of waterbirds on the Arctic Coastal Plain annually since 1986.46,47 Therefore, we requested maps of the best available owl data within the NPR-A. Figure 5 illustrates Snowy Owl density and Figure 6 reflects Short-eared Owl locations. Both figures represent potential breeders, given survey timing, and should be considered in the impact analysis of the IAP. 43 Alaska Department of Fish and Game. 2015. Alaska Wildlife Action Plan. Juneau, Alaska. 44 Rich, T.D., C.J. Beardmore, H. Berlanga, P.J. Blancher, M.S.W. Bradstreet, G.S. Butcher, D.W. Demarest, E.H. Dunn, W.C. Hunter, E.E. Inigo-Elias, J.A. Kennedy, A.M. Martell, A.O. Panjabi, D.N. Pashley, K.V. Rosenberg, C.M. Rustay, J.S. Wendt, and T.C. Will. 2004. Partners in Flight North American Landbird Conservation Plan. Cornell Lab of Ornithology, Ithaca, NY. 89 pp. [available at: https://partnersinflight.org/resources/the-plan/] 45 Ditto. 46 Wilson, H.M., W.W. Larned, and M.A. Swaim. 2018. Abundance and Trends of Waterbird Breeding Populations on the Arctic Coastal Plain, Alaska, 1986-2017. Unpublished report, U.S Fish and Wildlife Service, Migratory Bird Management, Anchorage, AK. 47 Amundson, C. L., P. L. Flint, R. A. Stehn, R. M. Platte, H. M. Wilson, W. W. Larned and J. B. Fischer. 2019. Spatio-temporal population change of Arctic-breeding waterbirds on the Arctic Coastal Plain of Alaska. Avian	cycles, which both species rely upon, are not well understood nor are they something for which the BLM can manage. Gyrfalcon is on the Stewardship List because a high percentage of the western hemisphere population is in a single biome (the Arctic). Nest sites have been identified during aerial and river surveys and are protected by BMPs, which are in effect whether the Colville River Special Area is retained or not.

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(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	Conservation and Ecology 14(1):18 [available at: http://www.ace-eco.org/vol14/iss1/art18/]. Figure 5. Mean density of Snowy Owls within the NPR-A boundary (1992-2016) showing moderate numbers north and east of the Teshekpuk Lake. (colors are birds per sq. km). Figure 6. Locations of Short-eared Owls within the NPR-A Boundary (1992-2016).	*(see above)*
McGuire	Rebecca	Alaska Shorebird Group	27169	11	Birds	Future resource and community developments include roads that connect productive wildlife areas surrounding the Teshekpuk Lake with the village of Utqiagvik, Nuiqsut and ultimately Deadhorse. Roads will allow subsistence and eventually sport hunters access to areas within NPR-A that are currently difficult to reach. Impacts of human access extend far beyond the initial road or pipeline, as people use boats and all-terrain vehicles to penetrate far from access points. These enhanced hunting and recreational activities will disturb wildlife, impair habitats, and lead to lower adult survival and clutch loss through subsistence hunting and gathering. 50,51 Molting geese may be particularly vulnerable due to their need to graze for long periods of the day to maintain their energy balance. Species that occur in low numbers, are sensitive to changes in mortality, or have decreasing populations cannot sustain even low harvest levels.52 Of particular concern is the small population of Bar-tailed Godwit (Limosa lapponica baueri) that is located south of Nuiqsut that are already declining and subject to subsistence harvest on the Yukon Delta, Alaska.53 One only has to look	The BLM acknowledged the increased access and subsistence harvest that would likely result from the construction of the community road. The impacts of the road will be similar to roads for oil development, except there may be higher use from subsistence harvesters. The Final IAP/EIS has been updated to incorporate new information, as appropriate.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	11 *(cont.)*	*(see above)*	at the Dalton Highway that was once closed to the public but now has open hunting along its entire length. The general public will demand access to newly constructed roads, resulting in degradation and irreparable harm to wildlife and their habitats, as well as a deterioration of native subsistence activities, in all areas within NPR-A that become available due to new roads. 50 Hockin, D.M. Ounsted, M. Gorman, D. Hill, V. Keller, and M.A. Barker. 1992. Examination of the effects of disturbance on birds with reference to its importance in ecological assessments. Journal of Environmental Management 36:253-286. 51 Naves, L.C., J.M. Keating, T.L. Tibbitts, and D.R. Ruthrauff. 2019. Shorebird subsistence harvest and indigenous knowledge in Alaska: Informing harvest management and engaging users in shorebird conservation. Condor: Ornithological Applications 121:1-19. 52 Watts, B. D., E. T. Reed, and C. Turrin. 2015. Estimating sustainable mortality limits for shorebirds using the Western Atlantic Flyway. Wader Study 122:37-53. 53 Naves, L.C., J.M. Keating, T.L. Tibbitts, and D.R. Ruthrauff. 2019. Shorebird subsistence harvest and indigenous knowledge in Alaska: Informing harvest management and engaging users in shorebird conservation. Condor: Ornithological Applications 121:1-19.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	142	Birds	The DEIS is contradictory regarding the efficacy of restoring habitat impacted by gravel infrastructure. The DEIS states, "Direct losses from gravel footprints would las as long as development projects are active, or until gravel is removed from retired roads and pads for restoration."808 This statement is incorrect, as evidenced by the very next sentence, which states, "Natural recovery of disturbed sites on the North Slope has been estimated to require 600 to 800 years for upland mesic sites and 100 to 200 years for marsh sites (NRC 2003)."809 The subsequent paragraph notes, "reclamation and restoration of original habitat value has not been achieved for gravel removal in the arctic environment once operations have ceased."810 Additionally, shorebirds and passerines do not use even reclaimed acres in the same way they use non-disturbed areas.811 Moreover the DEIS does not adequately analyze the potential for gravel roads to result in thermokarst development and vegetation change.812 The DEIS should be corrected to make clear that direct impacts from gravel infrastructure would be permanent. ------- 808 1 DEIS at 3-136. 809 1 DEIS at 3-136. 810 1 DEIS at 3-136. 811 Rebecca Bentzen, Joe Liebezeit, Martin Robards, Bill Streever, Samantha Strindberg, and Steve Zack, Bird use of northern Alaska oilfield rehabilitation sites, 71 Arctic 422 (2018). 812 See generally Benjamin Sullender, Ecological Impacts of Road- and Aircraft-based access to Oil Infrastructure, Audubon Alaska, Anchorage Alaska (2017).	Direct loss of habitat occurs when tundra is covered with gravel. Once gravel is removed and rehabilitation proceeds, the habitat will be altered but not lost. As reported by Bentzen et al. (2018) and others, birds use rehabilitated sites but not in the same manner or degree as undisturbed tundra. Thus, the original habitat values will probably not be completely restored for decades or centuries, but some use likely will occur. The vegetation and wetlands sections address the effects of gravel removal on tundra soils and vegetation change.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	141	Birds	The DEIS also does a poor job analyzing impacts to Yellow-billed loons. The DEIS notes that water withdrawals could result in "local population consequences,"807 but does not combine these impacts with effects from gravel infrastructure. Given the conservation concern for Yellow-billed Loons, the DEIS should analyze how the different alternatives impact these loons differently. We also note that forthcoming research on Yellow-billed Loons in the Fish Creek area will be available prior to the publication of the FEIS, and the agency should incorporate this information into its decision. ------- 807 1 DEIS at 3-136.	The statement "… local population consequences" was meant to refer to loons on isolated lakes and ponds that might be drawn down. The wording has been modified to be more accurate. The effects of gravel infrastructure are not clearly understood. Johnson et al. (2019) found no displacement of nesting or brood-rearing territories within 1 and 2 miles of active infrastructure. ROP E-11 prohibits construction of gravel roads and pads within 1 mile of nest sites under Alternatives A–D and 0.5 miles under Alternative E. The differences among the alternatives would be in the magnitude of effects, not in the type of effects. Under Alternative E, the reduced buffer around nests would increase the risk of negative effects. Appendix Tables P-1 and Q-1 quantify numbers of yellow-billed loons in areas open to oil and gas leasing and available to infrastructure by alternative and development potential; the text has been expanded to discuss impacts on the loon and eider special status species. The manuscript on loons in the Fish Creek area, referred to by the commenter, is not available, but if it were released before the FEIS is finalized, the BLM would incorporate its findings. The BLM added a summary of Poessel et al. (2020), which evaluated the 1-mile buffer prescribed in ROP E-11.

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Donahey	Leah	Alaska Wilderness League	29320	135	Birds	The DEIS also fails to accurately describe the status of red knots. The DEIS states, "red knot may breed occasionally near Utqiagvik."787 But a review of eBird788 records for June and July indicates nearly annual sightings during breeding and immediate post-breeding seasons in the Utqiagvik area, as well as at least one sighting in the Utukok Uplands Special Area and several sightings between the western boundary of the NPR-A and the coast south of Point Lay. Note that eBird reports are from areas frequented by birdwatchers, and the actual occurrence of red knots in the NPR-A may be much broader. For instance, researchers have reported two red knot nests within the Teshekpuk Lake Special Area.789 Therefore, this species is at least a rare breeder in one of the key areas likely to be affected by expanded oil and gas activity, and the DEIS must reflect this information. Perhaps more importantly, a certain subspecies of red knot (Calidris canutus roselaari) may be an important breeder in the rarely visited dry, montane uplands on the north side of the Brooks Range in the Utukok Special Area.790 This subspecies is of high conservation concern because its population is believed to be declining and is very small to begin with - only about 22,000 individuals.791 The DEIS must take this information into account and incorporate it into its analysis on the impacts of the action alternatives. -------- 787 1 DEIS at 3-125. 788 EBird, Red Knot, https://ebird.org/species/redkno (last visited Jan. 21, 2020). 789 S.T.	The BLM has incorporated updated information on red knots from eBirds and the Shorebird Conservation Plan. The BLM notes that 8 of 9 photo records were for 2 days in June 2018, so it is difficult to translate those kinds of records to regular occurrence. Additionally, the two records in Saalfeld et al. (2017) are not listed as nests. The BLM cannot assume that birds occurring in June are nesting without nest records. That is true for any species.

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(see above)	*(see above)*	*(see above)*	*(see above)*	135 *(cont.)*	*(see above)*	Saalfield, R.B. Lanctot, S.C. Brown, D.T. Saalfield, J.A. Johnson, B.A. Andres, and J.R. Bart, Predicting breeding shorebird distributions on the Arctic Coastal Plain of Alaska, 4 Ecosphere 16 (2017). 790 See species account in the Alaska Shorebird Group, Alaska Shorebird Conservation Plan, version III, Alaska Shorebird Group, Anchorage AK (2019). 791 Stan Senner, et al., Pacific Americas Shorebird Conservation Strategy, National Audubon Society, New York NY (2016) available at http://www.shorebirdplan.org.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	136	Birds	The DEIS does not accurately describe the status of Dunlin. Although the DEIS mentions Dunlin broadly, there is no specific mention of the fact that the subspecies nesting in the NPR-A (Calidris alpina articola) is experiencing poor survival792 and is in decline.793 In fact, according to a new data synthesis study, half of all wader species (including shorebirds) in the Arctic are declining,794 and the DEIS should consider these trends for both Dunlin and for other shorebirds in the NPRA. Although likely causes of decline for the articola Dunlin are found on wintering grounds and migration stopovers in the East Asian-Australasian Flyway, this decline only heightens concern for any impacts to this subspecies on its breeding areas, which are at a very high density in the Teshekpuk Lake Special Area.795 The DEIS also fails to mention the recent designation of the Qupaluk Flyway Network Site through the East Asian-Australasian Flyway Partnership.796 This area north of	The BLM added information on the Qupaluk site and discussed the flyway and habitat loss in the Yellow Sea and other correlates identified by Smith et al. (2020).

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(see above)	*(see above)*	*(see above)*	*(see above)*	136 *(cont.)*	*(see above)*	Teshekpuk Lake is recognized in large part because of the high density nesting population of articola Dunlin. Not only should this designation be mentioned in the DEIS, and included in maps in Appendix A, this area should remain off limits to leasing and surface infrastructure, and the DEIS must analyze impacts to this special site. -------- 792 Emily L. Weiser, et al., Environmental and ecological conditions at Arctic breeding sites have limited effects on true survival rates of adult shorebirds, 135 The Auk 29 (2018). 793 U.S. Shorebird Conservation Plan Partnership, U.S. Shorebirds of Conservation Concern (2016), available at https://www.shorebirdplan.org/wp-content/uploads/2016/08/Shorebirds-Conservation-Concern-2016.pdf; see also species account in Alaska Shorebird Group, Alaska Shorebird Conservation Plan, Version III, Alaska Shorebird Group, Anchorage AK (2019). 794 Paul A. Smith, Laura McKinnon, Hans Meltofte, Richard B. Lanctot, Anthony D. Fox, James O. Leafloor, Mikhail Soloviev, Alastair Franke, Knud Falk, Mikhail Golovatin, Vasiliy Sokolov, Aleksandr Sokolov, and Adam C. Smith, Status and trends of tundra birds across the circumpolar Arctic, 49 Ambio 732 (2020). 795 J.R. Liebezeit, G.C. White, and S. Zack, Breeding Ecology of Birds at Teshekpuk Lake: A Key Habitat Site on the Arctic Coastal Plan of Alaska, 64 Arctic 32 (2011). 796 Partnership for the East Asian Australasian	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	136 *(cont.)*	*(see above)*	Flyway, https://www.eaaflyway.net/qupalukflyway-network-site-eaaf113-east-asian-australasian-flyway-partnership (last visited Jan. 21,2020).	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	140	Birds	The DEIS fails to thoroughly analyze impacts to Steller's eiders and associated habitat. Steller's eiders historically bred in areas throughout the NPR-A but were extirpated from some areas and their population diminished compared to its historical range. The purpose of listing a species on the ESA is to restore the population, and any development action that would impede Steller's eiders from recolonizing previously used habitat is incongruous with its designation as a species protected by the ESA. But the DEIS does not analyze whether activities within eider habitat will curtail the species' ability to repopulate that area in the future.	Analysis of effects on the historical range and habitat of the Steller's eider is beyond the scope of the IAP/EIS. The BLM analyzed the impacts, given the distribution of Steller's eiders over 25 years, and compared them among alternatives and development potential areas.

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Donahey	Leah	Alaska Wilderness League	29320	150	Birds	Yet the DEIS analysis claims protections to birds and special status species while failing to acknowledge these mitigation measures could change under the action alternatives, and failing to compare these changes among the alternatives. The DEIS states that "both spectacled and Steller's eiders must have 3 years of pre-breeding aerial surveys . . . prior to construction permitting, if development is proposed in their habitat . . ."832 The DEIS also states, "ROP E-11 requires three years of aerial surveys for pre-breeding eiders" for projects within eider survey areas.833 But this mitigation measure could change under the action alternatives. In doing so, the DEIS fails to acknowledge the action alternatives would undermine protections to species listed under the Endangered Species Act. In the analysis on Yellow-billed Loons, the DEIS states, "Under all alternatives, ROP E-2 prohibits permanent facilities within 500 feet of fish-bearing waterbodies (see exceptions) and K-2 prohibits permanent facilities within 0.25 miles of deep (more than 13 feet deep) water bodies (see exceptions), further protecting birds using those habitats."834 The DEIS also claims that "Lakes where yellow-billed loons breed will have 1-mile buffers between infrastructure and nest sites and 1,625-foot buffers around nesting lake shorelines."835 By glossing over the potential for changes and failing to address differences among the alternatives, the DEIS has failed to conduct an adequate analysis. -------- 832 1 DEIS at 3-124; see also 1 DEIS at 3-141. 833 1 DEIS at 3-141. 834 1 DEIS at 3-137. 835 1 DEIS at 3-137.	The applicable ROPs and their variation among alternatives were added to the alternatives comparisons.

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Donahey	Leah	Alaska Wilderness League	29320	154	Birds	The DEIS contains statements without reference to supporting evidence. For example, the DEIS states that rehabilitated gravel mines “would likely be used by some species of nonbreeding, breeding, and brood-rearing waterbirds.”845 This statement lacks any reference to scientific evidence, as is the case with countless other statements in the bird section of the DEIS. Where the DEIS does make reference to supporting materials, it is often overly simplistic. For example, the DEIS says that” most species are more at risk from habitat changes and degradation in wintering areas, which are recognized to be driving population declines in many vulnerable species,” referencing “Audubon 2017,” which is the Ecological Atlas of the Bering, Chukchi, and Beaufort Seas, edited and published by Audubon Alaska in 2017.846 But the DEIS should articulate which sections of the Atlas it is referring to and should also note which “vulnerable” species it is referencing. Such vague references to large bodies of work are not useful for the public reading an environmental analysis. -------- 845 1 DEIS at 3-136. 846 AUDUBON ALASKA, ECOLOGICAL ATLAS OF THE BERING, CHUKCHI AND BEAUFORT SEAS (2017), available at https://ak.audubon.org/sites/default/files/arctic atlas composite 144ppifinal. pdf.	The Final IAP/EIS has been updated with the correct citation, Warnock 2017. The Alaska Watch List 2017. The BLM added citations for observations of birds using artificial waterbodies on the North Slope. There are numerous observations from Kuparuk.

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Donahey	Leah	Alaska Wilderness League	29320	155	Birds	The DEIS also includes quotations in the bird section that appear to be from North Slope residents, but provides no context or explanation; nor does the DEIS actually incorporate the knowledge within these quotations into its analysis. For example, the DEIS describes “significantly positive growth rates” for king eiders,847 but a quote included on the following page explains that “king eider populations have declined by about 50 percent in the last 20, 25 years.”848 Another example comes from the discussion on Steller's eiders. Steller's eiders historically bred in areas throughout the NPR-A but were extirpated from some areas and their population diminished compared to its historical range. The indigenous knowledge quote on this topic in the DEIS849 supports the notion that Steller's eiders once used this area heavily prior to their declines, but the DEIS does not incorporate this information into its analysis. The DEIS does not incorporate the traditional knowledge into its discussion and only inserts it somewhat haphazardly among the rest of the discussion and analysis. --------- 846 AUDUBON ALASKA, ECOLOGICAL ATLAS OF THE BERING, CHUKCHI AND BEAUFORT SEAS (2017), available at https://ak.audubon.org/sites/default/files/arctic atlas composite 144ppifinal.pdf. 847 1 DEIS at 3-127. 848 1 DEIS at 3-128.	Traditional Ecological Knowledge was inserted in sections where it was relevant. It does not always agree with the data presented from surveys and literature, just as results and conclusions in scientific literature may disagree. There is a disagreement in the data cited. King eiders have declined during migration, which includes birds breeding in Canada (Suydam, R. S., D. L. Dickson, J. B. Fadely, and L. T. Quakenbush. 2000. “Population declines of king and common eiders of the Beaufort Sea.” *Condor* 102: 219–222), whereas king eiders in breeding areas on the ACP, northeast NPR-A, and Kuparuk have been increasing (Wilson et al. 2018; Shook, J. E., J. P. Parrett, C. B. Johnson, and J. Welch. 2020. Avian Studies in the Willow Project Area, 2019. Report prepared for ConocoPhillips Alaska, Inc., Anchorage, by ABR, Inc., Fairbanks, Alaska; and Attanas, L. B., and J. E. Shook. 2020. Eider Surveys in the Kuparuk Oilfield, Alaska, 2019. Draft report for ConocoPhillips Alaska, Inc., Anchorage, Alaska, by ABR, Inc., Fairbanks, Alaska). Steller’s eiders no longer breed in the eastern portion of their historical range; the BLM does not need to analyze the effects of leasing on areas that are unoccupied and unlikely to be occupied in the near future.

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Donahey	Leah	Alaska Wilderness League	29320	145	Birds	The DEIS is contradictory in regard to whether screeding would have impacts to aquatic birds. First, the DEIS notes that each occurrence of screeding "would create a temporary sediment plume that could impede feeding . . . and would likely cause displacement to other feeding areas."816 Displacement from feeding areas can cause failed breeding and reductions in local abundance. But later the DEIS downplays the impacts of screeding817 and fails to analyze how these impacts may impact species in those areas and at those times. The DEIS also does not analyze whether screeding that occurs in certain areas or at certain times of year would have more impact than others. The DEIS notes that Harrison Bay is an area of concentration for eiders and that waterbirds congregate along the Arctic coast in July and August.818 But the DEIS does not make the connection to increased impact from screeding in these areas or at these times. ------- 816 1 DEIS at 3-138. 817 1 DEIS at 3-142 ("Potential behavioral disturbance by screeding and barging vessels and displacement of birds by associated vessel activity would occur annually in a relatively small area and be temporary."). 818 1 DEIS at 3-138.	Screeding and sediment plumes would displace feeding to other areas. The Final IAP/EIS was updated with discussion of the size of screeding from Willow (12–15 acres) and relevant findings by Flint, P. L., J. A. Reed, J. C. Franson, H. T. E, J. B. Grand, M. D. Howell, R. B. Lancetot, et al. 2003. Monitoring Beaufort Sea Waterfowl and Marine Birds. MMS 2003-037, OCS Study: U.S. Geological Survey, Alaska Science Center,

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Donahey	Leah	Alaska Wilderness League	29320	146	Birds	The DEIS overall downplays the risk of spills and their impacts to birds. The DEIS first states that "the risk of spills is reduced in the various areas with no leasing, NSO, and prohibitions to permanent infrastructure under each alternative," but that "the frequency of occurrence of spills would not differ."819 This statement is ambiguous and confusing because areas where there is no oil and gas activity would certainly experience both a lower risk and a lower frequency of spills.820 Second, the DEIS states that spills less than 100 gallons "would be restricted to ice or gravel roads and pads, never reaching the tundra and having no impacts on birds."821 While these smaller spills would pose less risk to birds, a spill of any size has the potential to impact birds. Finally, the DEIS states that large spills are uncommon, and only "three larger than 100,000 gallons have occurred on the North Slope," but these appear to be only spills of crude oil, while spills of saltwater and other materials can also be toxic. ------ 819 1 DEIS at 3-145. 820 See, e.g., 1 DEIS at 3-80 ("Spills resulting from post-lease development will add to the number of spills annually from the oil industry and other reasonably foreseeable future developments in the NPR-A; spill projections vary between alternatives from 6,584 barrels for Alternative B to 12,667 barrels for Alternative D."). 821 1 DEIS at 3-145.	The Final IAP/EIS was updated to be consistent with the spill risk assessments in Appendix I.

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Purtle	Joshua	California Office of the Attorney General	27340	1	Birds	BLM fails to rationally analyze the impacts that expanded leasing would have on the Reserve's migratory birds. In particular, BLM does not meaningfully explain how bird impacts will differ among the Draft EIS alternatives, which propose radically different management regimes.	The IAP/EIS contains a robust analysis of impacts on birds. At the programmatic level, the BLM cannot speculate on the number of birds that would be killed or displaced under each alternative. Instead, the analysis uses the overlap of bird distribution with areas available for leasing and development to estimate the degree to which impacts could occur under each alternative. The analysis was expanded to discuss impacts on special status species, brant, brant colonies, and brant molting areas.
Senner	Stanley	–	27093	12	Birds	p. 3-142 DEIS: "Helicopter flights would occur during pre-breeding, nesting, brood-rearing and molting, and fall-staging periods for most of the species in the planning area. Helicopter landings on tundra could cause displacement from feeding and loafing areas and from nests, or cause separation of broods, which could allow predators to take eggs or chicks. Helicopter landings and low-level helicopter flights could [emphasis added] cause escape movements or flight behavior of individuals or flocks and interfere with feeding and resting; however, such effects are usually very short term and localized." Comment: The use of the word "could" in the sentence above implies that there is uncertainty about whether helicopter flights over and around the TLSA would be disruptive. To the contrary, the disruption and lack of habituation caused by such flights, specifically within the TLSA, is well established for brant (e.g., Jensen 1990).	The Final IAP/EIS was updated changing *could* to *would*.

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McGuire	Rebecca	Alaska Shorebird Group	27169	10	Birds	Both Snowy and Short-eared Owls are nomadic and move about according to food availability. However, impacts to populations breeding on the North Slope have implications at a continental scale. For example, Short-eared Owls tracked with satellite transmitters from relatively small (discrete) breeding areas within Alaska ventured across large portions of North America.49 This indicates that what happens to these birds within the NPR-A is not restricted to the NPR-A. 49 Johnson, J.A., T.L. Booms, L.H. DeCicco, and D.C. Douglas. 2017. Seasonal movements of the Short-eared Owl (Asio flammeus) in Western North America as revealed by satellite telemetry. Journal of Raptor Research 51:115-128.	It would not be reasonable to consider impacts on birds in parts of their range outside of the North Slope. The IAP/EIS acknowledges that development in the NPR-A will add adverse impacts that are cumulative, but the geographic scope is confined to the area and its surroundings that BLM land management decisions can affect. The Cumulative Impacts in Section 3.3.4 of the Final IAP/EIS was updated to describe how birds could be further affected.
McGuire	Rebecca	Alaska Shorebird Group	27169	3	Birds	In trying to achieve a balance between promoting development and protecting resources, we believe it is essential to recognize: 1) the NPR-A is of global and national importance for shorebirds in particular (see background section), and 2) unprecedented, large-scale declines are occurring now in both shorebirds and land birds, including those breeding in tundra habitats (Figures 1, 2, 15,16,17). 15 North American Bird Conservation Initiative Canada. 2019. The State of Canada's Birds, 2019. Environment and Climate Change Canada, Ottawa, Canada. 12 pages. [available at: www.stateofcanadasbirds.org] 16 Rosenberg, K. V., A. M. Dokter, P. J. Blancher, J. R. Sauer, A. C. Smith, P. A. Smith, J. C. Stanton, A. Panjabi, L. Helft, M. Parr, and P. P. Marra. 2019. Decline of the North American	The BLM acknowledges that the NPR-A is of global and continental importance to all birds in NPR-A, not just shorebirds, and that many species are in decline. The Final IAP/EIS has been updated to incorporate new information, as appropriate. The BLM incorporated the listed references and discussion, as appropriate.

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(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	avifauna. Science 366:120-124. 17 Smith, P.A., L. McKinnon, H. Meltofte, R.B. Lanctot, A.D. Fox, J.O. Leafloor, M. Soloviev, A. Franke, K. Falk, M. Golovatin, V. Sokolov, A. Sokolov, and A.C. Smith. 2020. Status and trends of tundra birds across the Circumpolar Arctic. Ambio Birds are declining, by the billions15, for a whole host of reasons throughout their annual cycles. However, the breeding grounds, by definition, are the only place where populations can be replenished. The breeding grounds in the NPR-A contain nurseries of global note for their productivity and high species diversity. These Arctic nurseries are also at most risk due to climate change. As such, it is essential to minimize any impacts to them whenever possible. Conservation efforts elsewhere in the world will have little effect, unless individuals have a place in which to breed successfully. Figure 1. Percent change bird groups since 1970; note declines in shorebirds, grassland birds, and aerial insectivores - many of which breed in the NPR-A. (From North American Bird Conservation Initiative Canada 2019 14). Figure 2. Net population change in North American birds, illustrating the negative change in population size for Arctic tundra species. (From Figure 1 in Rosenberg et al. 2019 15).	*(see above)*
McGuire	Rebecca	Alaska Shorebird Group	27169	20	Birds	The Qupaluk site is nationally and internationally recognized for its importance as a breeding site within the flyway. BLM, as the site manager, is expected to ensure that the water bird values of their site are maintained and enhanced where possible, and is	The BLM recognizes the importance of the Qupaluk site and has updated the Final IAP/EIS to include the site in relevant figures and discussion in the Affected Environment in Section 3.3.4.

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(see above)	*(see above)*	*(see above)*	*(see above)*	20 *(cont.)*	*(see above)*	encouraged to adopt sustainable land-use practices at the site with the range of stakeholders using the site. As one of only two sites in Alaska out of a total of 145 sites throughout the EAAF Partnership's 22 country network, this relatively small parcel of land represents the United States' commitment to preserve breeding habitat for birds that migrate along this very troubled flyway.67 Indeed the EAAF is considered one of the most imperiled flyways in the world, with many species declining dramatically,68 including the arcticola Dunlin whose breeding range is mostly restricted to the Arctic Coastal Plain of Alaska.69 We believe it is imperative that this site be protected from any form of surface development while allowing traditional subsistence use of the area to continue. 67 https://www.eaaflyway.net/about-us/the-flyway/flyway-site-network/68 Studds, C. E., B. E. Kendall, N. J. Murray, H. B. Wilson, D. I. Rogers, R. S. Clemens, K. Gosbell, C. J. Hassell, R. Jessop, D. S. Melville, D. A. Milton, et al. 2017. Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nature Communications 8:14895. 69 Gates, H.R., S. Yezerinac, A.N. Powell, P.S. Tomkovich, O.P.Valchuk, and R. B. Lanctot. 2013. Differentiation of subspecies and sexes of Beringian Dunlin using morphometric measures. Journal of Field Ornithology 84:389-402.	*(see above)*

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Donahey	Leah	Alaska Wilderness League	29320	132	Birds	DEIS combines analysis for each guild, briefly incorporates by reference the entire 2012 NPR-A IAP FEIS without updating that information,781 and fails to adequately describe these bird species in the NPR-A. In the final EIS, the agency should include short descriptions of each of these birds, referencing the 2012 FEIS but providing any updated information. ---------- 781 1 DEIS at 3-123.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference. The IAP/EIS incorporates by reference the broad overview of potential impacts from the 2012 IAP/EIS; however, it does not incorporate by reference any quantitative analysis resulting from the alternatives.
Donahey	Leah	Alaska Wilderness League	29320	133	Birds	The DEIS uses ten-year estimates of bird populations size rather than single-year estimates, and only uses data up to 2017.782 This method may be a concern for some bird species, because ten-year averages may homogenize any potential accelerating declines, or may flatten out varying trends in recent years due to climate change. Moreover, the agency should endeavor to use 2018 and 2019 data, which are available. The agency should include both ten-year estimates and single-year estimates for bird species populations in the final EIS. --------- 782 See, e.g., 1 DEIS at 3-124 ("Ten-year estimates of population size are reported rather than single-year estimates (latest available is for 2017) . . . .").	The BLM used the best information available at the time of the development of the IAP/EIS. Neither 2018 nor 2019 data were available. Single year estimates are highly variable for ACP aerial surveys; distribution maps are prepared in 4-year increments, as the survey lines alternate locations on a 4-year cycle (Wilson et al. 2018). Ten-year means are the best indicator of the current status of populations on the ACP, and 10-year trends, which are rarely significant because of annual variation, were the best estimates of current trends. See Wilson, Larned et al. (2018) to view annual variation in annual counts of all species.

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Donahey	Leah	Alaska Wilderness League	29320	144	Birds	The analysis of the potential for a community road north of Teshekpuk Lake is incomplete. The DEIS states, “All action alternatives allow for construction of community infrastructure with appropriate mitigation.”815 The DEIS does not explain what this “appropriate mitigation” would entail. Moreover, the DEIS does not explain whether the no action alternative provides for community infrastructure in areas that fall outside the designation of “no new nonsubsistence infrastructure.” The DEIS also does not state the justification or need for placing a road north of the lake, rather than in other areas that are already available for such a road. Nor does the DEIS explain that erosion may make such a road infeasible. ------- 815 1 DEIS at 3-148.	An analysis of a road north of Teshekpuk Lake was included at the request of a cooperating agency. This plan makes no decisions about the routing of such a road, and any proposal would be subject to additional NEPA analysis. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and mitigation and an analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.
Donahey	Leah	Alaska Wilderness League	29320	137	Birds	Furthermore, the DEIS fails to address impacts to migratory birds in their stop-over and wintering habitat beyond the project area. Migratory birds in the Arctic can face problems finding migratory and wintering habitat outside of the project area. The impacts from beyond the project area can in some cases be more severe than impacts in the Arctic,802 and must be considered in the context of impacts within breeding ranges. For example, shorebirds flying along the East Asian-Australasian Flyway are facing pressure from development in vital stopover habitat in the Yellow Sea. At a minimum, the DEIS should describe the life-histories (and the accompanying threats) of the shorebirds of special conservation	It would not be reasonable to consider bird habitat on all seven continents for purposes of evaluating reasonably foreseeable action that may affect birds outside of the North Slope. The DEIS acknowledges that development in the NPR-A will add adverse impacts that are cumulative, but the geographic scope is confined to the area and its surroundings that BLM land management decisions can affect. Rosenberg et al. (2016) stated “Restoring and managing habitats on the breeding grounds may not succeed in reversing declines of many Watch List species without a similar investment in critical winter habitats south of the U.S.” And “Striking new results illustrate that where a species spends the winter may be a better

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(see above)	*(see above)*	*(see above)*	*(see above)*	137 *(cont.)*	*(see above)*	concern, including American Golden-Plover, Whimbrel, Hudsonian Godwit, Bar-tailed Godwit, Red Knot, Sharp-tailed Sandpiper, Dunlin (particularly the vulnerable articola subspecies), Buff-breasted Sandpiper, Pectoral Sandpiper, Western Sandpiper, Wandering Tattler, Lesser Yellowlegs. Pacific Brant are also experiencing changes to their wintering habitats, which may be changing nesting and survival in Brant on their Arctic breeding grounds.803 The DEIS must consider these transboundary effects in conjunction with impacts from oil and gas activity. Given the four alternatives and three development scenarios, the DEIS should model the cumulative impacts of increased predation, human disturbance, and habitat loss and degradation on these species, in combination with reduced survival rates these birds may be experiencing along their migratory flyways. As written, the DEIS is ignoring or glossing over what could be major impacts on entire populations in prime high-density nesting areas around Teshekpuk Lake. -------- 802 Weiser, E. L., R. B. Lanctot, S. C. Brown, H. R. Gates, R. L. Bentzen, J. Bêty, M. L. Boldenow, W. B. English, S. E. Franks, L. Koloski, E. Kwon, J.-F. Lamarre, D. B. Lank, J. R. Liebezeit, L. McKinnon, E. Nol, J. Rausch, S. T. Saalfeld, N. R. Senner, D. H. Ward, P. F. Woodard, and B. K. Sandercock, 2018, Environmental and ecological conditions at Arctic breeding sites have limited effects on true survival rates of adult shorebirds, The Auk: 29-43. 803 Ward, D. H., A. Reed, J. S.	predictor of population declines than where it breeds." The Final IAP/EIS Cumulative Impacts in Section 3.3.4 was updated to clarify how birds could be further affected.

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(see above)	*(see above)*	*(see above)*	*(see above)*	137 *(cont.)*	*(see above)*	Sedinger, J. M. Black, D. V. Derksen, and P. M. Castelli, 2005, North American Brant: effects of changes in habitat and climate on population dynamics, Global Change Biology 11:869-880; Leach, A. G., D. H. Ward, J. S. Sedinger, M. S. Lindberg, W. S. Boyd, J. W. Hupp, and R. J. Ritchie, 2017, Declining survival of black brant from subarctic and arctic breeding areas, The Journal of Wildlife Management 81:1210-1218.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	139	Birds	The DEIS also fails to grapple with other differences between the alternatives. For example, the analysis for Alternative B805 does not explain this alternative would allow for a pipeline to potentially go through the Goose Molting Area, whereas Alternative A would prohibit this from occurring. Pipeline crossings under all alternatives should be better described and the impacts analyzed, including the different harms to sensitive birds. The analysis of each alternative806 also does not mention the differences in mitigation measures and ROPs, despite important caveats and changes that would occur under the action alternatives (see more discussion below). ------- 805 1 DEIS at 3-150. 806 1 DEIS at 3-149 to -151.	The Final IAP/EIS was updated to describe the differences among alternatives for pipeline corridors and ROPs.

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Donahey	Leah	Alaska Wilderness League	29320	143	Birds	The DEIS also misstates the effect of gravel roads on shorebirds stating, “there is also evidence that nest densities of some shorebirds are higher in the dust shadows of roads (NRC 2003).”813 This is misleading at best, because the NRC report does not say that any species have benefitted from road dust shadows or from any other byproduct of development. The DEIS should be corrected accordingly. Finally, the DEIS mentions that a gravel island could be constructed offshore, but does not analyze this possibility for impacts on birds.814 ------- 813 1 DEIS at 3-137. 814 1 DEIS at 3-137.	The NRC states that TERA 1993 found fewer shorebird nests near to, as opposed to farther from, roads but also found higher densities (of nests) on the leeward side, where dust fallout might have created more attractive conditions. The appropriate caveats have been added to the Final IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	134	Birds	The DEIS fails to describe population trends for birds within the NPR-A. For example, in the waterbird section, the DEIS states that goose “populations have been increasing over the last 25 to 32 years in terms of 10-year average population estimates,”783 but only gives population numbers rather than trends and does not specify whether species data are stemming from the 25- or 32-year datasets. This makes the data difficult to understand and could hide important information on population trends for these geese, as well as for other waterbirds for which trends are not presented. Moreover, the DEIS should cite to population and trend data each time it gives population data for each bird species.784 -------- 783 1 DEIS at 3-127. 784 E.g., 1 DEIS at 3-127 (“Tundra swans (16,022) also have been increasing.”).	Population trends were estimated for either 25 or 32 years, the longest provided in Wilson et al. (2018). Some species had 25 years of data (1993–2017), others had 32 years of data (1986–2017). Both are very long-term datasets and represent the longest available for those species on the ACP. The trend information was reviewed and incorporated, where it was deemed appropriate.

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Donahey	Leah	Alaska Wilderness League	29320	147	Birds	Broadly across the bird section, the DEIS lacks sufficient description and information on potential changes in phenology and the potential for resulting impacts from this climate change effect.	A general description of potential climate change effects on the project area is all that is possible, based on current scientific understanding. Climate change predictions and their effects on the natural resources in relation to the proposed action cannot be quantitatively assessed.
Donahey	Leah	Alaska Wilderness League	29320	153	Birds	The bird section is overall inconsistent in its attention to detail, suggesting a lack of editorial review and care. The bird section of the DEIS contains numerous typos,841 suggesting that the agency rushed through the writing. The DEIS also notes “six Important Bird Areas designated for continental or global importance,” and references Map 3-18, but this map does not contain all six IBAs and the IBAs depicted are outdated.842 The DEIS has also placed jaegers among the “larids,”843 while these birds belong to the family Stercorariidae, not the Laridae. Finally, the DEIS is inconsistent in the presence of some bird species. For example, the DEIS states that “whimbrel . . . occur at low densities in Teshekpuk Lake Special Area,” but in the next sentence states, “whimbrels are . . . not recorded in the Teshekpuk Lake Special Area . . .”844 The agency should correct these errors in the final EIS and generally take more time to ensure accuracy and readability. These errors reflect on the broader poor quality of this DEIS. -------- 841 See 1 DEIS at 3-126 (Nils Warnock's last name is misspelled in two references as “Warnoc”; and BLM 2019b reference is not reflected in the References section), 3-127 (“agl” in the first full paragraph does not appear to be a	The Final IAP/EIS has been updated and corrected, as appropriate.

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(see above)	*(see above)*	*(see above)*	*(see above)*	153 *(cont.)*	*(see above)*	word), and compare 3-127 with 3-130 (cranes are listed as both waterbirds and landbirds), 3-142 (the sentence in the first paragraph appears incomplete). 842 Audubon Alaska, 2014. Important Bird Areas of Alaska, v3. Audubon Alaska, Anchorage, AK. Accessed online at http://databasin.org/datasets/f9e442345fb54ae28cf72f249d2c23a9. 843 1 DEIS at 3-130. 844 1 DEIS at 3-126.	*(see above)*
Taylor	Audrey	Boreal Partners in Flight	29234	4	Birds	1) We strongly urge protection of all balsam poplar stands currently identified within the NPR-A and BLM Special Areas, as well as any new poplar stands that may be discovered in the future (Figure 1). These rare and unique habitat features provide the only viable cavities for Gray-headed Chickadee nests on the North Slope, making their protection crucial to avoiding further decline of a species that is of particularly high stewardship and conservation importance in Alaska.2,3,4,5 Birds may also use poplar cavities as shelter during winter months. The sparse distribution of Gray-headed Chickadees makes successful detection a challenge (see recommendation #2). Yet, protection of the spatially discrete balsam poplar stands ensures that this critical breeding resource persists on the landscape. Conservation of stands has the added benefit of safeguarding unique communities of organisms that occur there.8 2) Document locations of Gray-headed Chickadees within the NPR-A by reaching out to State and Federal agency partners currently studying this species. Sparse distribution and decline make it extremely difficult to detect Gray-	The Final IAP/EIS has been updated to state "Additional vegetation types are present, but were not mapped due to their small total area. For example, stands of balsam poplar (Populus balsamifera) occur along the Etivluk, Kigalik, and Utukok Rivers (Breen 2014)."

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(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	headed Chickadees via conventional survey methods. Yet, the species' year-round range includes the balsam poplar stands in Figure 1,6,8 making Gray-headed Chickadees a likely inhabitant of the NPR-A. Boreal Partners in Flight can provide BLM with contacts for scientists actively engaged in an international research effort to detect and monitor Gray-headed Chickadees. The effort includes State of Alaska and Federal agency scientists, as well as Canadian partners. Acoustic recording devices and cutting-edge song analysis software are actively being developed and promise to provide a reliable means of detection and monitoring	*(see above)*
Purtle	Joshua	California Office of the Attorney General	27340	7	Birds	First, the Draft EIS does not rationally analyze the potential impacts of climate change to the Reserve's migratory birds. The Draft EIS seeks to present these impacts as essentially a wash, or even a net boon, for the birds. In the process, the Draft EIS attempts to minimize the expected negative impacts of climate change, and thus presents an irrationally rosy portrait of future conditions for the Arctic's migratory birds. For example, the Draft EIS asserts that “warmer spring temperatures” will allow “some birds to arrive and nest earlier” and produce “replacement clutches and double broods in some species.” 2019 Draft EIS at 3-132 through 3- 133. The longer breeding season will also, according to BLM, benefit loon and tundra swan chicks, which are slow to develop. Id. at 3-133. Thus, BLM asserts, warmer temperatures will	Both negative and positive responses to climate change are predicted, but that does not contradict the expectation of extinctions occurring at the current rate of global warming. Expectations are that there will be range shifts and contractions and that some species will expand their ranges northward with shifting habitats and longer snow-free seasons, and others that are more dependent on aquatic and wet tundra will decline. New information has been reviewed and included, as appropriate.

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	result in "higher nesting success" for certain species. Id. The Draft EIS further acknowledges that "[a]rrival and breeding of birds in the arctic may not coincide with peaks in insect production … or forage quality in vegetation … , resulting in mismatches in timing of reproduction with forage conditions," but quickly adds that "some species appear to have flexibility in timing arrival and egg laying to adjust to forage production based on local conditions." Id. This unduly optimistic description of climate impacts conflicts with BLM's admission in the Final EIS for BLM's anticipated Refuge leasing program that climate change effects "combined with development-related impacts across the ranges of many bird species may result in extinction" within the next 85 years. Arctic Refuge EIS at 3-116. Although the Arctic Refuge EIS is fatally flawed in numerous respects-including in its analysis of impacts to migratory birds-see Comments submitted by Attorney General of Washington, et al., to Nicole Hayes, BLM, Re: Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program (Mar. 13, 2019), its acknowledgment that climate change impacts to migratory birds will be severe highlights the inadequacy of BLM's treatment of those same impacts in the Draft EIS for the Reserve. The Draft EIS's analysis of climate impacts on migratory birds is further inconsistent with the EIS accompanying the 2013 Integrated Activity Plan. There, BLM wrote that "[b]ird habitats worldwide are	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	threatened by climate change, though species for which breeding is restricted to the Arctic regions may be the most vulnerable to climate change." 2012 Final EIS, vol. 1 at 278. Coastal erosion caused by climate change in particular "has the potential to significantly decrease the terrestrial habitat" used by waterfowl and shorebirds for molting, "foraging, nesting, brood-rearing, and staging" for migration. Id. at 279. "Increased summer temperatures could lead to the conversion of aquatic habitats into dryer habitat types resulting in a loss of not only habitat quantity but also habitat quality in terms of potential decrease in food resources (invertebrate and plant)." Id. at 278; see also Fourth National Climate Assessment, Chapter 26: Alaska, at 1197 (June 2019) (attached as Exhibit 11) (describing impacts of coastal erosion and conversion of tundra habitat to shrubland). The proliferation of shrubs and trees in areas previously covered in tundra plants could also reduce available breeding habitat for species, such as shorebirds, that cannot nest in shrubby areas. 2012 Final EIS, vol. 1 at 279. BLM's 2012 analysis further acknowledges that changes in the timing of insect emergence and forage availability could have severe impacts on arctic birds: for example, the "potential disconnect between invertebrate abundance and bird nutritional needs may cause decreases in bird productivity and survival … and have a negative effect on bird body condition during the molt and pre-migration periods." Id. The	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	Draft EIS, by contrast, omits or attempts to downplay these expected impacts. The Draft EIS states that it is "incorporat[ing]" its analysis of climate change impacts from the Arctic National Wildlife Refuge Final EIS "by reference," Draft EIS at 3-131, but that analysis too is insufficient. BLM must therefore revise its climate analysis to provide "a reasonable, good faith, and objective presentation" of potential climate impacts to migratory birds, including by accounting for BLM's findings in the 2012 Final EIS for the Reserve, which contradict the 2019 Draft EIS's findings. Nat. Res. Def. Council v. U.S. Forest Serv., 421 F.3d 797, 811 (9th Cir. 2005) (such revision may be necessary "[w]here the information in the initial EIS was so incomplete or misleading that the decisionmaker and the public could not make an informed comparison of the alternatives") (quotation omitted); Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1225 (9th Cir. 2008) (holding environmental assessment was unlawful where agency's conclusion that rule's climate impacts would not be significant lacked adequate support).	*(see above)*

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Schell	John	ConocoPhillips Alaska	29272	11	Birds	ROP E-11: Protections for Sensitive Bird Species - Yellow Billed Loons ConocoPhillips is discouraged that BLM retained the 1-mile buffer restriction around yellow-billed loon nests in ROP E-11. ConocoPhillips believes this to be overly conservative and a requirement that will require permit waiver, exception, or modification for future resource development activity in the NPR-A. A recent article, “Territory Occupancy by Breeding Yellow-Billed Loons near Oil Development” published in The Journal of Wildlife Management (Johnson et al. 2019),4 which BLM cites in the IAP/EIS states, “The BLM restrictions on development were judged conservative in maintaining breeding territories around oilfield developments. Our results did not demonstrate displacement of nests or broods from long-standing territories by oil development.” ------------ 4 Johnson, C. B., A. M. Wildman, A.K. Prichard, C. L. Rea. 2019. “Territory occupancy by breeding yellow-billed loons near oil development”. Journal of Wildlife Management 83: 410-425.	ROP E-11 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	96	Birds	Page 3-124 Paragraph 5 All species are protected by the Migratory Bird Treaty Act (16 USC 703 et seq.), Contrary to a statement in the text, not all species on the Arctic Coastal Plain are protected by the MBTA.	The Final IAP/EIS has been updated to clarify that ptarmigan and grouse are the only resident species not protected by the Migratory Bird Treaty Act.

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Schell	John	ConocoPhillips Alaska	29272	97	Birds	Page 3-128 Paragraph 6 Also in the area there are relatively dense populations of king eiders which are very important again for subsistence and king eider populations have declined by about 50 percent in the last 20, 25 years. This statement, taken from testimony provided in Utiqiagvik in 2003 is directly contrary to the data provided by BLM on the proceeding page (3-127) that cites the King eider have a positive growth rate (Wilson et al. 2018).	There is a disagreement in the data cited pertaining to when and where the birds are enumerated. King eiders have declined during migration, which includes birds breeding in Canada (Suydam, R. S., D. L. Dickson, J. B. Fadely, and L. T. Quakenbush. 2000. “Population declines of king and common eiders of the Beaufort Sea.” *Condor* 102: 219–222); however, king eiders in breeding areas on the ACP, NE NPR-A, and Kuparuk have been increasing (Wilson et al. 2018; Shook, J. E., J. P. Parrett, C. B. Johnson, and J. Welch. 2020. Avian Studies in the Willow Project Area, 2019. Report prepared for ConocoPhillips Alaska, Inc., Anchorage, Alaska, by ABR, Inc., Fairbanks, Alaska; and Attanas, L. B., and J. E. Shook. 2020. Eider Surveys in the Kuparuk Oilfield, Alaska, 2019. Draft report for ConocoPhillips Alaska, Inc., Anchorage, Alaska, by ABR, Inc., Fairbanks, Alaska).
Schell	John	ConocoPhillips Alaska	29272	99	Birds	Page 3-134 Paragraph 2 Winter construction would affect the few resident birds, whereas summer construction activity could potentially affect large numbers of breeding and post-breeding birds. Habitat loss also would peak during construction, including the building of ice roads... These statements are inaccurate. No construction activity will be conducted off pad during the summer months, therefore disturbance is low to none. Additionally, construction of ice roads does not result in any habitat loss for avian species as by their very nature, ice roads melt each spring. ConocoPhillips recommends BLM revise this information to provide appropriate impact analysis.	Ice roads do not all melt before birds begin breeding, and multi-year ice pads, by definition, do not melt each year. Ice roads cause vegetation compaction and breakage of stems and leaves and reduces vegetation cover (see Vegetation and Wetlands). In a study of nesting geese at CD5, greater white-fronted geese avoided nesting in locations where ice roads and pads had been built the winter before (Rozell and Johnson 2020). Disturbance is not contained to gravel pads; visual and noise disturbance extends from the disturbance source (people, vehicles, aircraft, machinery, and vessels on water). For example, tundra swans can flush from nests up to 500 m from people (Monda et al. 1994).

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Schell	John	ConocoPhillips Alaska	29272	100	Birds	Page 3-135 Paragraph 6 Statement that large water removals from lakes could have negative impacts on nesting habitats of many species of waterbirds... Water withdrawal may have localized short-term effects on a waterbody, but existing federal and state requirements ensure protections to wildlife habitat and balanced management of water resources. Water withdrawal from lakes is effectively regulated by existing federal and state requirements intended to protect habitat for all species. BLM's disregard of existing requirements and practices presents incomplete analysis of potential projected impacts. BLM should include the appropriate discussion of existing required mitigation measures.	The IAP/EIS acknowledges protections granted by ROPs and State of Alaska regulations restricting the withdrawal of volumes >20%. However, should lakes not recharge as expected during spring, they might be less suitable as nesting and feeding areas than before water withdrawal. The deviations to ROPs may be granted so that some lakes may not be protected by ROP B-2. The Final IAP/EIS has been updated to ensure accuracy and clarity.

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Watkins	Doug	East Asian - Australasian Flyway Partnership Secretariat	27444	5	Birds	The Qupaluk site is a relatively small parcel of land within the NPR-A, but it represents so much more. Indeed, it represents the United States' commitment to preserve breeding habitat for birds that migrate along the EAAF. As a leader in conservation, the other countries within the EAAF Partnership look up to the United States and expect it to lead by example. Compromising the integrity of 1 of only 2 Flyway Network Sites within Alaska clearly sends the wrong message. To conclude, it is essential to protect the integrity of the Qupaluk Flyway Network Site by preventing any type of development from occurring in or near the 21,100 hectare site. North-south pipelines, roads and other community development should be routed around this site or prevented from occurring north of the Teshekpuk Lake altogether.	The BLM and cooperating agencies designed the alternatives to cover a broad range from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Under Alternatives A, B, and C, the Qupaluk site remains unavailable for leasing and new infrastructure. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Watkins	Doug	East Asian - Australasian Flyway Partnership Secretariat	27444	4	Birds	it is essential to protect the integrity of the Qupaluk Flyway Network Site by preventing any type of development from occurring in or near the 21,100 hectare site. North-south pipelines, roads and other community development should be routed around this site or prevented from occurring north of the Teshekpuk Lake altogether.	The BLM and cooperating agencies designed the alternatives to cover a broad range from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Under Alternatives A, B, and C, the Qupaluk site remains unavailable for leasing and new infrastructure. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Watkins	Doug	East Asian - Australasian Flyway Partnership Secretariat	27444	1	Birds	The EAAFP Flyway Site Network ensures the survival of migratory waterbirds by having a network of sites available during the annual cycle of breeding, migration, and wintering. The Qupaluk site is nationally and internationally recognized for its importance as a migratory waterbird breeding site within the Flyway. It meets the criteria of international importance of the Ramsar Convention for supporting a globally threatened species, such as Steller's Eiders (VU) and >20,000 migratory waterbirds. Breeding grounds are perhaps the most important as they provide the only place where populations can be restocked. Conservation efforts elsewhere in the world will have little effect, unless individuals have a place in which to breed successfully. Under the proposed NPR-A Integrated Activity Plan, the Qupaluk site could be compromised in a variety of ways. Alternatives B-D have provisions that allow at a minimum , pipelines and at a maximum, large scale developments within the site. In addition, the ability of native communities to propose the construction of infrastructure throughout the NPR-A is also troubling. Indeed, infrastructure might include roads, powerlines, fuel pipelines, communications systems, and even a " road connecting Nuiqsut and Utqiagvik that is routed north of Teshekpuk Lake".1 As the Qupaluk site is located only a short distance north of Teshekpuk Lake, such a road could expose the migratory birds that depend on this site to a variety of negative effects.	The IAP/EIS discloses impacts on migratory birds associated with potential leasing in or near the Qupaluk site. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Under Alternatives A, B, and C, the Qupaluk site remains unavailable for leasing and new infrastructure. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Watkins	Doug	East Asian - Australasian Flyway Partnership Secretariat	27444	3	Birds	Figure1. Qupaluk EAA Flyway Network Site (blue outline)located northeast of Teshekpuk Lake. Figure 2. Aerial photograph of the Q upaluk site (yellow outline) showing density of Dunlin found during rapid surveys of 400 x 400 m2 study sites(USFWS). The Qupaluk site is particularly important to the EAAF Site Network because of the number of arcticola Dunlin that breed in the area(estimated breeding population at the time of nomination -6,500). Demographic modeling from the breeding grounds indicate this subspecies has much lower mean annual survival rates than other subspecies of Dunlin that winter in North America.2 At present rates, the population will decline to 3% of its 2014 level within 20 years. Population surveys in Japan also indicate Dunlin populations have declined up to 80% since 1975 3,4, and available colour mark resightings and tracking data indicate these Dunlin are mostly the arcticola subspecies.5 Declines of Dunlin and other waterbirds are widespread within the EAAF 6 ; such changes are driven by sea level change, and anthropogenic-driven factors such as extensive intertidal reclamation, subsistence and commercial hunting, and commercial development. In short, there are many reasons to be concerned about this subspecies of Dunlin, and anything that negatively impacts essential breeding habitat need to be avoided if the decline is to be stopped and then reversed. 2 Weiser, E.L .,R.B.Lanctot,S.C.Brown, H.R .Gates, R.L .Bentzen, J.Bêty, M.L.Boldenow,	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Under Alternatives A, B, and C, the Qupaluk site remains unavailable for leasing and new infrastructure. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	W.B.English, S.E.Franks, L.Koloski, E.Kw on,J.-F.Lamarre,D.B. Lank, J.R .Liebezeit, L .McKinnon, E.Nol,J. Rausch, S.T. Saalfeld, N.R. Senner, D.H. Ward, P.F. Woodard, and B.K. Sandercock. 2018. Environmental and ecological conditions at Arctic breeding sites have limited effects on true survival rates of adult shorebirds. The Auk: Ornithological Advances 135:29-43. 3 Amano,T .,T . Szekely, K.Koyama, H.,Amano, and W.J. Sutherland. 2010. A framework for monitoring the status of populations: An example from wader populations in the East Asian-Australasian flyway. Biological Conservation 143:2238-2247. 4 Amano,T .,T . Szekely, K.Koyama, H. Amano, and W .J.Sutherland. (2012). Addendum to “A framework for monitoring the status of populations: An example from wader populations in the East Asian-Australasian flyway.” BiologicalConservation, 143,2238-2247.Biological Conservation145:278-295. 5 Lagassé,B.J. 2019. Population connectivity and migratory dynamics of the Dunlin(Calidrisalpine) along the East Asian-Australasian Flyway. MS c.Thesis, University of Colorado Denver. 6 Studds,C.E., B.E. Kendall, N .J.Murray, H.B.Wilson, D.I.Rogers, R.S. Clemens, K.Gosbell, C.J. Hassell, R. Jessop, D.S. Melville, D.A. Milton, etal. 2017. Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nature Communications 8:14895.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	11	Birds	the Borough believes that the imposition of a one-mile buffer around yellow-billed loon nest sites may be unnecessary. According to a recent paper, Territory occupancy by breeding yellow-billed loons near oil development, 1 yellow-billed loons are resilient to oil and gas development at close distances and were not displaced by activities at the Alpine oilfield facilities. BLM should reassess the need for a one-mile buffer based on this scientific study as loons may still be adequately conserved if this protection is reduced.	ROP E-11 has been updated in the Final IAP/EIS.
Fisher	Kevin	North Slope Borough	29290	11	Birds	1 Johnson, C.B., et al., Territory occupancy by breeding yellow-billed loons near oil development. Jour. Wild. Mgmt., 83: 410-425 (2019). doi: 10.1002/jwmg.21592.	This citation was referenced in the IAP/EIS.
Senner	Stanley	–	27093	5	Birds	p. 3-126 DEIS: "The patchy distribution of yellow-billed loons and concerns for its small population (USFWS 2014) led to an intergovernmental conservation agreement (USFWS 2006)…" Comment: The DEIS should note that this intergovernmental conservation agreement was allowed to lapse and is no longer in force. Further, it is not clear that commitments made as part of that agreement (e.g., related to monitoring) were ever honored or are now being honored.	The conservation agreement did lapse and the Final IAP/EIS has been updated accordingly. The IAP/EIS states that the yellow-billed loons have been monitored on the Colville Delta for 25 years and along Fish and Judy Creeks for 16 years (Johnson, C. B. , A. M. Wildman, A. K. Prichard, and C. L. Rea. 2019b. "Territory occupancy by yellow-billed loons near oil development." *Journal of Wildlife Management* 83: 410–425; Johnson, C. B., J. P. Parrett, T. Obritschkewitsch, J. R. Rose, K. B. Rozell, and P. E. Seiser. 2015. Avian Studies for the Alpine Satellite Development Project, 2014. Twelfth annual report for ConocoPhillips Alaska, Inc., and Anadarko Petroleum Corporation, Anchorage, Alaska, by ABR, Inc., Fairbanks, Alaska).

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	–	27093	10	Birds	p. 3-128 Waterbirds DEIS: “The NPR-A is a major breeding and molting area for brant (Appendix A, Map 3-17) and other geese; a portion of the Teshekpuk Lake Special Area on the north and east of Teshekpuk Lake has long been recognized as a regional concentration area for molting geese (King 1970) and monitored with annual surveys since 1976 (Schultz and Zeller 2019). An estimated 22 percent of the entire brant population uses the Teshekpuk Lake Special Area during molt (Flint and Thompson 2018) and brant and other geese in the Teshekpuk Lake Special Area survey area are concentrated in a subset of the available lakes although many more are used less consistently.” Comment: Brant deserve more detailed consideration here. Black brant (Branta bernicla nigricans) and associated Western High Arctic brant are subject to a management plan by the Pacific Flyway Council (2018), and that Council has long expressed concern about the effects of oil and gas activity on brant in the Teshekpuk Lake area (most recently in a letter dated 10 October 2018 to then Secretary Zinke). The Council has established a population target for brant, 162,000, and monitoring over several decades indicates that the population is variable and often under that target (Pacific Flyway Council 2018). Brant nesting in major colonies in the Yukon-Kuskokwim Delta are declining, and declines in those colonies are not being fully offset by increased production in the Arctic (Sedinger et al. 2019). Moreover, productivity of	The Final IAP/EIS has been updated to expand the discussion of brant, as appropriate.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	10 *(cont.)*	*(see above)*	brant nesting in the Teshekpuk Lake area has declined (Leach et al. 2017). The Goose Molting Area attracts brant from the entire Pacific population, including nonbreeders, failed breeders and post-breeding birds from eastern Russia, western Canada, western Alaska (Yukon-Kuskokwim Delta) and northern Alaska (Arctic Coastal Plain). As noted in the DEIS, an estimated 22 percent of the entire brant population may use the TLSA during the molt. This statistic can be misleading, however, since a much higher proportion of the entire brant population may use the goose molting area at Teshekpuk over a period of years-i.e., not all brant use the area each year, but most brant likely use it in some years. Hence, the goose molting area is likely of importance to most or all brant in the Pacific population. Recent papers continue to underscore the sensitivity of molting brant and lack of behavioral flexibility with respect to development-related disturbance and habitat loss (e.g., Lewis et al. 2011).	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	–	27093	4	Birds	p. 3-125 Special Status Species DEIS: "…red knot may breed occasionally near Utqiagvik…" Comment: A review of eBird records for June and July (all years combined) indicates nearly annual sightings during breeding and early post-breeding seasons in the Utqaigvik area, as well as at least one sighting in the Utukok River Uplands Special Area and several sightings between the western boundary of NPRA and the coast south of Pt. Lay. Note that eBird reports come from the limited sites frequented by birdwatchers; actual occurrence of red knots in NPR-A may be much wider. Indeed, Saalfield et al. (2017; cited in the DEIS) reported two red knot nests within the TLSA. Hence, this species is at least a rare breeder in one of the key areas likely to be affected by expanded oil and gas activity following a revised IAP. In addition, red knot (Calidris canutus roselaari) is a likely breeder in the rarely visited dry, montane uplands on the north side of the Brooks Range in the Utukok River Uplands Special Area. See species account in the Alaska Shorebird Conservation Plan (Alaska Shorebird Group 2019). This red knot subspecies is of high conservation concern, because its population is small to begin with (about 22,000 individuals; Senner et al. 2016) and is thought to be declining. The DEIS also should note that red knots are likely in decline worldwide (Andres et al. 2012), and that C. c. rufa, the other North American breeding subspecies, is federally listed as Threatened under the ESA.	The new information has been reviewed and included, as appropriate, in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	–	27093	6	Birds	DEIS: “Dunlin are declining worldwide with loss of winter habitat (Warnoc [sic] and Gill 1996; Warnoc [sic] 2017), but are one of the most widely distributed and common breeding species in the western Beaufort Coastal Plain (Johnson et al. 2007), including the NPR-A and Teshekpuk Lake Special Area (Andres et al. 2012, Saalfeld et al. 2013).” Comment: Although the DEIS mentions declines in dunlin broadly, there is no specific mention here of the fact that the subspecies of Dunlin nesting in NPR-A, Calidris alpina arcticola, is experiencing poor survival (Weiser et al. 2018) and is in decline (U.S. Shorebird Conservation Plan Partnership (2016). See species account in the Alaska Shorebird Conservation Plan (Alaska Shorebird Group 2019). Although likely causes are found on wintering grounds and migration stopovers in the East Asian-Australasian Flyway, this decline only heightens concern about the cumulative effects of any additional impacts to this subspecies on its breeding areas, which are at a very high density in the TLSA (e.g., Liebezeit et al. 2011, cited in DEIS).	The Final IAP/EIS was updated to describe the dunlin's status and potential impacts from the alternatives on Dunlin and the Teshekpuk Lake Special Area. The new information will be cited, where appropriate.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	_	27093	7	Birds	In this DEIS, BLM fails to mention designation of the Qupaluk Flyway Network Site [EAAF133] north of Teshekpuk Lake through the East Asian-Australasian Flyway Partnership (https://www.eaaflyway.net/qupaluk-flyway-network-site-eaaf133-east-asian-australasian-flyway-partnership/). With BLM concurrence, this area north of Teshekpuk Lake was designated in large part to recognize its high-density nesting population of arcticola Dunlin. Not only should the designation be mentioned in the DEIS and included in maps in Appendix A, this area should off limits to leasing and surface infrastructure.	The BLM recognizes the importance of the Qupaluk site and has updated the Final IAP/EIS to include the site in relevant figures and discussion in the Affected Environment in Section 3.3.4.

Z.3.9 Climate and Meteorology

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	87	Climate and Meteorology	BLM fails to quantify or consider the impacts of black carbon emissions from activities conducted under the IAP.	Section 3.2.1 and Appendix G (Sections G.1.1 and G.3) include information on black carbon and its potential effects on climate, based on available, peer-reviewed literature. Section G.3 also lists the sources of black carbon and notes that black carbon emissions are included in the $PM_{2.5}$ emissions that are quantified in the air quality analysis (Section 3.2.2). With construction in the Arctic, black carbon will be emitted as part of the $PM_{2.5}$ emissions from diesel-fired equipment, including engines, boilers, heaters, pumping units, and other equipment, including aircrafts and flares. The Final IAP/EIS has been updated to provide clarity, and the BLM has revised the sentence in Section G.3, from “Black carbon emissions are not considered in this assessment of climate impacts” to “Black carbon emissions are not explicitly quantified in this assessment of climate impacts.” The BLM has made the following addition to Section G.3: “The effect of black carbon on arctic climate is complex and still an active area of research. There are still many uncertainties to be resolved by the scientific community to better understand the complex mechanisms and feedbacks between black carbon and its effect on Arctic climate.”

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	28	Climate and Meteorology	Page 3-3 -Observed and Projected Climate Trends and Impacts in the Arctic and North Slope * Para 1, L 10: consider adding some text and a reference about soil erosion due to increased heavy rain (thunderstorm activity). *What about marine CH4 from melted methane hydrate on the seabed? This may be an issue worth consideration.	The Final IAP/EIS has updated the Section 3.2.1 discussion about the potential impact of climate change on soil erosion due to increased rain from storms. Methane hydrates are not being considered as viable resources for the purposes of this IAP/EIS. No commercial development of methane hydrates has occurred to date. If the gas market further increased, the BLM assumes that stranded conventional gas within current infrastructure would be developed first.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	4	Climate and Meteorology	We recommend removing the statement on page 3-11 that “The relative likelihood of any specific location in the project area being affected by emissions from any specific source can be generally estimated by comparison to the wind rose shown in Appendix G (G.I.3).” Appendix G states that, “[s]ince the NPR-A covers a large geographic area, meteorological conditions throughout the NPR-A could differ from measurements collected at Nuiqsut, a site that is influenced by proximity to the coast.” Consequently, the statement on page 3-11 is therefore not accurate, as a single wind rose would not be able to accurately represent the entire area. In addition, we note that we were unable to locate the wind rose in the document.	The BLM agreed with this recommendation and the Final IAP/EIS has been updated to remove this statement. A wind rose therefore is also not needed in this context.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	62	Climate and Meteorology	Page #: 3-3 Table or figure: ADEC Reviewer Name/Agency: Comment: Paragraph two on this page discusses direct and indirect impacts and includes the impact of emissions from refining and consumption (“downstream greenhouse gas emission). This appears to conflict with the administration's Executive Order 13783 “Promoting Energy Independence and Economic Growth” and CEQ's Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions. This guidance tells agencies they need not quantify direct and reasonably foreseeable indirect greenhouse gas emissions unless they are sufficiently “substantial” and unless there are available tools to do so. Suggestion if applicable: Please explain how these greenhouse gases would be sufficiently substantial, given that greenhouse gas emissions through consumption of petroleum products would continue whether or not the projects anticipated in this EIS happen or not.	The CEQ's guidance on consideration of greenhouse gases is draft and has not been implemented yet. Executive Order 13783 does not provide direction on analyzing impacts on greenhouse gases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	63	Climate and Meteorology	Page #: 3-4 Table or figure: 3-1 Reviewer Name/Agency: ADEC Comment: Paragraph one on this page discusses direct and indirect impacts and includes the impact of emissions from refining and consumption ("downstream greenhouse gas emission). This appears to conflict with the administration's Executive Order 13783 "Promoting Energy Independence and Economic Growth" and CEQ's Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions. This guidance tells agencies they need not quantify direct and reasonably foreseeable indirect greenhouse gas emissions unless they are sufficiently "substantial" and unless there are available tools to do so. The "market substitution" explanation in this paragraph does not make sense. Suggestion if applicable: Please explain how these greenhouse gases would be sufficiently substantial, given that greenhouse gas emissions through consumption of petroleum products would continue whether or not the projects anticipated in this EIS happen or not.	The CEQ's guidance on consideration of greenhouse gases is draft and has not been implemented yet. Executive Order 13783 does not provide direction on analyzing impacts on greenhouse gases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	82	Climate and Meteorology	BLM must integrate the findings of the Fourth National Climate Assessment into decision-making about the management of the Reserve, especially in regards to fossil fuel development which is the primary driver of anthropogenic climate change and its harms.493 The DEIS fails to do so. ---------- 493 The Fourth National Climate Assessment decisively recognizes the dominant role of fossil fuels in driving climate change: "fossil fuel combustion accounts for approximately 85% of total U.S. greenhouse gas emissions," id. at 51, and burning of fossil fuels has largely contributed to the human-caused warming which is "driving an increase in global surface temperatures and other widespread changes in Earth's climate that are unprecedented in the history of modern civilization," id. at 39.	The IAP/EIS incorporates findings from The Fourth National Climate Assessment, as appropriate.
Donahey	Leah	Alaska Wilderness League	29320	83	Climate and Meteorology	Despite the dire threat posed by climate change and the enormous quantity of fossil fuels that could be produced from the Reserve under all of the proposed IAP alternatives, the DEIS includes a minimal discussion of climate change and greenhouse gas emissions-totaling only five pages, supplemented by a short appendix.542 This discussion does not reflect the severity and urgency of the problem or the significance of the effects of emissions projected under the proposed IAP alternatives. --------- 542 1 DEIS at 3-2 to 3-7; 2 DEIS app'x G.	Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, particularly with regard to the length of its NEPA documents. The BLM has complied with this order, and supporting documentation has been included in the appendices. Additional information about the climate change analysis can be found in Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	81	Climate and Meteorology	The DEIS fails even to consider any alternative that would limit leasing, and ultimately production, consistent with efforts needed to address climate change. The DEIS also fails to estimate the costs of greenhouse gas emissions that will result from the proposed IAP, despite available tools to do so; fails to consider the effects of the proposed alternatives in the context of a rapidly warming Arctic; and fails to quantify and consider the effects of black carbon. BLM's analysis must reflect the severity of the threat posed by climate change and address the significance of emissions under the proposed alternatives, and BLM must consider alternatives that would result in significantly lower greenhouse gas emissions.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. The BLM's rationale regarding the economic cost of greenhouse gas emissions and climate change effects is provided in Appendix G, Section G.2. As described in Section 3.2.1 and Appendix G, greenhouse gas emissions reported, in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative. Section 3.2.1 and Appendix G (Sections G.1.1 and G.3) include information on black carbon and its potential effects on climate, based on available, peer-reviewed literature.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	84	Climate and Meteorology	In sum, oil and gas development in the Arctic is a critical issue for the current administration to reexamine. The timeframe to avoid catastrophic climate change is short, and the management of our federal minerals is dangerously out of step with this reality. Oil and gas production requires investments in capital-intensive, high-carbon fuel infrastructure that resists being shut down and locks in long-term fuel supplies, making it more difficult and expensive to later shift to a low-carbon pathway and reach greenhouse gas targets.574 Reducing fossil fuel extraction, including from U.S. public lands and waters generally and the Reserve specifically must be part of the solution. -------- 574 Oil Change International at 13.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	85	Climate and Meteorology	The DEIS asserts that the impacts from greenhouse gas emissions from oil and gas development in the Reserve are too difficult to quantify because they will occur over several decades and are a small portion of global greenhouse gas emissions.576 While it may not be possible to directly associate particular actions with specific effects, all projects producing greenhouse gas emissions will contribute to the cumulative impact of climate change.577 Moreover, well established methods exist to evaluate the significance of a project's greenhouse gas emissions. Indeed BLM acknowledged, and improperly rejected, one such method-the social cost of carbon. 578 -------- 575 See 40 C.F.R. § 1502.16(a), (b). 576 1 DEIS at 3-3. 577 2 DEIS app'x G at G-10 to -11. 578 2 DEIS app'x G at G-9 to -10.	As described in Appendix F, Section F.4.1, greenhouse gas emissions reported, in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative. The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.
Donahey	Leah	Alaska Wilderness League	29320	86	Climate and Meteorology	BLM must consider the ongoing and increasing effects from climate change in the Reserve, including by incorporating the changing climate into the baseline against which the alternatives will be evaluated and evaluating how existing and increasing climate change impacts will act cumulatively and synergistically with the effects from activities allowed under the IAP.586 -------- 586 See Klamath-Siskiyou Wildlands Ctr., 387 F.3d at 993.	The IAP/EIS considers the changing baseline conditions of every resource in the affected environment section for that resource.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Purtle	Joshua	California Office of the Attorney General	27340	11	Climate and Meteorology	The Draft EIS fails to assess the potential economic and social impacts of increased greenhouse gas emissions associated with expanded leasing in the Reserve, using the social cost of carbon protocol or any other method. 2019 Draft EIS at 3-6. None of BLM's reasons for not calculating the social cost of carbon have merit and the agency's refusal to quantify the Draft Plan's climate costs violates NEPA and APA requirements. See Wild Fish Conservancy v. Irving, 221 F. Supp. 3d 1224, 1234 (E.D. Wash. 2016) (agency violated APA requirement to consider all "important aspect[s] of the problem" where it "failed to consider the potential effects of climate change on stream flows"). NEPA requires agencies to fully evaluate the impacts of a proposed action, including its economic impacts. See Columbia Basin Land Prot. Ass'n v. Schlesinger, 643 F.2d 585, 595 (9th Cir. 1981). The social cost of carbon protocol is a federally-developed tool to assist agencies in evaluating the economic and social benefits of reducing carbon dioxide emissions when analyzing the impacts of agency actions. See 2019 Draft EIS at G-9. BLM asserts that it is not required to calculate the social cost of carbon because, according to BLM, NEPA "does not require a cost benefit analysis." 2019 Draft EIS at G-9. However, BLM concedes that it must consider all the economic and social effects of its actions, id. at G-9, and it cannot do so without fully analyzing the economic and social costs of increased greenhouse gas	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	11 *(cont.)*	*(see above)*	emissions associated with the Draft Plan. Here, BLM takes pains to quantify the economic growth the Draft Plan would generate, 2019 Draft EIS at 3-304 through 3-314, but fails to provide a similarly detailed analysis of the economic impacts of greenhouse gas emissions. BLM's analysis of economic impacts is therefore incomplete and arbitrary. High Country Conservation Advocates v. U.S. Forest Serv., 52 F. Supp. 3d 1174, 1195 (D. Colo. 2014) ("It is arbitrary to offer detailed projections of a project's upside while omitting a feasible projection of the project's costs."); Ctr. for Biological Diversity, 538 F.3d at 1198 (agency "cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs" in failing to analyze the benefits of reducing greenhouse gas emissions); Wild Fish Conservancy v. Irving, 221 F. Supp. 3d at 1234. BLM's other reasons for rejecting the social cost of carbon protocol also lack a reasonable basis. First, BLM asserts that because the NEPA review process is not a rulemaking process for which the social cost of carbon tool was originally created and because federal policy has changed, BLM has no obligation to calculate the social cost of carbon. 2019 Draft EIS at G-9. This reasoning is inconsistent with legal precedent requiring agencies to fully analyze the economic impacts of their actions, independent of any federal policy. Columbia Basin Land Prot. Ass'n, 643 F.2d at 595; High Country Conservation Advocates, 52 F. Supp.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	11 *(cont.)*	*(see above)*	3d at 1195; Ctr. for Biological Diversity, 538 F.3d at 1198. Second, BLM's contention that the social cost of carbon protocol is not useful because it generates a range of dollar cost figures lacks support and contradicts BLM's statement elsewhere in the Draft EIS that it sometimes describes impacts “using ranges of potential impacts.” 2019 Draft EIS at F-1. Moreover, NEPA does not allow federal agencies to simply refuse to quantify carbon costs based on such claims of uncertainty or incomplete information. See Sierra Club v. FERC, 867 F.3d 1357, 1374 (D.C. Cir. 2017) (NEPA “necessarily involves some reasonable forecasting” and “agencies may sometimes need to make educated assumptions about an uncertain future.”) (quotation omitted); Ctr. for Biological Diversity, 538 F.3d at 1200 (even where “there is a range of values, the value of carbon emissions reduction is certainly not zero.”); High Country Conservation Advocates, 52 F. Supp. 3d at 1192 (explaining that even with “a wide range of estimates about the social cost of [greenhouse gas] emissions,” federal agencies acted arbitrarily in not quantifying the costs). For these reasons, BLM must fully evaluate the climate costs of increased emissions under the Draft Plan, including by using the social cost of carbon protocol or another similar method.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Purtle	Joshua	California Office of the Attorney General	27340	3	Climate and Meteorology	BLM fails to fully evaluate the Draft Plan's potential climate impacts, including by quantifying and disclosing the economic and social costs of the projected increase in greenhouse gas emissions.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G. The BLM considered greenhouse gas emissions and climate change in its cumulative effects analysis.
Purtle	Joshua	California Office of the Attorney General	27340	10	Climate and Meteorology	BLM's analysis of the Draft Plan's potential climate impacts is likewise incomplete and unlawful. In the Draft EIS, BLM provides estimates of the direct and indirect downstream greenhouse gas emissions for each project alternative. See 2019 Draft EIS at G-10 through G-18. The Draft Plan will, according to BLM, increase downstream greenhouse gas emissions from drilling activities in the Reserve by up to seventy-five percent under a "high development" scenario for alternative D, which opens up the greatest Reserve area for leasing. Id. at 3-5 through 3-6. Drilling activities could therefore, by BLM's estimate, result in total downstream emissions exceeding the equivalent of one billion metric tons of carbon dioxide. Id. at 3-5. This limited climate impact analysis fails to satisfy NEPA because it does not rationally evaluate the economic and social effects of greenhouse gas emissions associated with the Draft Plan or the cumulative impacts of expanded Reserve drilling with anticipated drilling in the Arctic Refuge Coastal Plain.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G. The BLM considered greenhouse gas emissions and climate change including potential development in the Arctic Refuge Coastal Plain in its cumulative effects analysis.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Rowland-Shea	Jennifer	Center for American Progress	26211	5	Climate and Meteorology	For a more detailed discussion of the ongoing land liquidation and potential carbon bomb at play in Alaska, we are attaching two reports: A Vast Liquidation of Public Lands Is Underway in Alaska Trump's Energy Policies put Alaska in the Climate Crosshairs	Suggested references were reviewed for applicability in the IAP/EIS and were incorporated into relevant sections.
Monsell	Kristen	Center For Biological Diversity	27356	4	Climate and Meteorology	BLM fails to properly analyze the climate impacts from the various alternatives in the Draft EIS, or how expanding oil and gas activity is inconsistent the vital need to end new oil and gas leasing, phase out existing production, and transition to clean sources of energy. Instead BLM tries to downplay the significance of leasing under the IAP by claiming that leasing in the Reserve would be "a small fraction of annual U.S. and global greenhouse gas emissions."271 But, as courts have instructed, the fact that "climate change is largely a global phenomenon that includes actions that are outside of [the agency's] control . . . does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming."272 In other words, "[g]iven the national, cumulative nature of climate change, considering each individual drilling project in a vacuum deprives the agency and the public of the context necessary to evaluate oil and gas drilling on federal land."273 Yet that is just what BLM did here, rendering its analysis improper. 271 Draft EIS, Vol. 1 at 3-3. 272 Ctr. for Biological Diversity v. Nat'l Traffic Safety Admin., 538F.3d 1172, 1217	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM considered greenhouse gas emissions and climate change in its cumulative effects analysis.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	(9thCir. 2008). 273 WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 83 (D.D.C. 2019).	*(see above)*
Monsell	Kristen	Center For Biological Diversity	27356	1	Climate and Meteorology	BLM Must Properly Consider the Climate Impacts of Opening More of the Reserve to Oil and Gas Activity I. An international scientific consensus has established that human-caused climate change is already causing widespread harms, climate change threats are becoming increasingly dangerous, and fossil fuels are the dominant driver of the climate crisis.	The BLM considered greenhouse gas emissions and climate change in its cumulative effects analysis.
Maupin	Siqiniq	Fairbanks	27316	2	Climate and Meteorology	Now, the climate crisis that we're currently facing, makes me question why we're even here talking about further developing with fossil fuels, as fossil fuel has been proven to be the number one contributor to climate change. We have 12 villages right now; they're in immediate crisis of falling into the ocean that need to be relocated, and there is no money being given for that. I think there may have been a grant given to one village that is going to be able to relocate. Everything they know, after the government forced them to stick to this land, they now have to relocate and make a new community. Now, we're talking about further developing land to put more fossil fuels into the air. And it -- I have to question why we are having this discussion when the people that are going to be most affected by climate change, first and foremost, will be people of color, indigenous folks, and people without monetary wealth.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.” In accordance with EO 12898, this EIS evaluated the disproportionally high and adverse human health and environmental effect on minority and low-income populations. See Section 3.4.5 in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	1	Climate and Meteorology	BLM Impermissibly Fails to Disclose the Plan's Potentially Significant Climate Impacts Despite the Presence of a Simple and Readily-Available Tool for Doing So: The IWG's Social Cost of Greenhouse Gases	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	2	Climate and Meteorology	By failing to use available tools, such as the social cost of carbon, to analyze and disclose the potentially significant impacts of the greenhouse gas emissions resulting from the master development plan, BLM has violated NEPA.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	4	Climate and Meteorology	By monetizing climate damages using the social cost of greenhouse gas metrics, BLM can help satisfy NEPA's legal obligations and statutory goals to assess and disclose potentially significant incremental effects bearing on the public interest. The social cost of greenhouse gases methodology calculates how the emission of an additional unit of greenhouse gases affects atmospheric greenhouse concentrations, how that change in atmospheric concentrations changes temperature, and how that change in temperature incrementally contributes to the above list of economic damages, including property damages, energy demand effects, lost agricultural productivity, human mortality and morbidity, lost ecosystem services and non-market amenities, and so forth.18 The social cost of greenhouse gases tool therefore captures the factors that actually affect public welfare and assesses the degree of impact to each factor, in ways that just estimating the volume of emissions cannot. 18 2010 TSD, supra note 14, at 5.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	11	Climate and Meteorology	While there may not be a bright-line test, the emissions BLM estimates for this plan are potentially significant and warrant monetization. This is especially true since, once emissions have been quantified, the additional step of monetization through application of the IWG's cost estimates entails a simple arithmetic calculation.74 It is difficult to understand how NEPA's mandate that an agency take a "hard look" at the potentially significant environmental impacts of its actions in an environmental impact statement can be satisfied if BLM fails to take the simple step of analyzing the potentially significant impacts of the greenhouse gas emissions that it quantifies. 74 Agencies simply need to multiply their estimate of tons in each year by the IWG's 2016 values for the corresponding year of emissions (adjusted for inflation to current dollars). If the emissions change occurs in the future, agencies would then discount the products back to present value.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	13	Climate and Meteorology	BLM mentions the availability of new "interim" estimates of the social cost of greenhouse gases that make changes "to the consideration of domestic versus international impacts and the consideration of appropriate discount rates."118 Those two changes are inappropriate and violate the obligations under NEPA to assess environmental consequences. 118 DEIS at G-9.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	5	Climate and Meteorology	Capturing how marginal climate damages change as the background concentration changes is especially important because NEPA requires assessing both potentially significant present and future impacts.25 Different project alternatives can have different greenhouse gas consequences over time. Most simply, different alternatives could have different start dates or other consequential changes in timing. Calculating volumes or percentages, especially on an average annual basis, is insufficient to accurately compare the climate damages of project alternatives with varying greenhouse gas emissions over time. Here, for instance, BLM reports only the total greenhouse gas emissions from each of the four alternatives, misleadingly implying a proportional relationship between these volumetric estimates and the climate impacts of each alternative.26 By reporting only volumetric greenhouse gas projections, BLM paints an incomplete and misleading portrait of the relative climate impacts of the integrated activity plan. 25 NEPA requires agencies to weigh the “relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity,” as well as “any irreversible and irretrievable commitments of resources.” 42 U.S.C. § 4332(2)(C). 26 See DEIS at Table 3-1. This problem would be easily solved by applying the social cost of greenhouse gases metric, which seamlessly accounts for timing differences between different	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	alternatives. By factoring in projections of the increasing global stock of greenhouse gases as well as increasing stresses to physical and economic systems, the social cost of greenhouse gas metrics enable accurate and transparent comparisons of projects with varying greenhouse gas emissions over time.	*(see above)*
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	7	Climate and Meteorology	By failing to contextualize greenhouse gas emissions in the DEIS, BLM potentially misleads the reader into believing that there would be no climate effects from the integrated activity plan, or that the effects would be extremely limited.	As described in Appendix F, Section F.4.1, greenhouse gas emissions reported, in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative.
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	8	Climate and Meteorology	Seemingly anticipating the objections presented above, BLM argues that it cannot monetize the integrated activity plan's effects on greenhouse gas emissions because “the [social cost of greenhouse gases] protocol does not measure the actual incremental impacts of a project on the environment.”60 BLM further argues that “the [social cost of greenhouse gases] dollar cost figure is generated in a range and provides little benefit in assisting the BLM Authorized Officer's decision for program or project-level analyses,” and that “there are no current criteria or thresholds that determine a level of significance for social cost of carbon monetary values.”61 These statements, however, are simply incorrect: first, the social cost of greenhouse gas protocol is exactly such a tool to monetize the incremental climate impacts of specific projects or plans, and to contextualize the magnitude of those	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	impacts. Second, BLM must exercise its expert judgment to determine if these monetary values are potentially significant after disclosing the necessary information.62 NEPA requires BLM to use the best available science to support its NEPA analysis, and the social cost metrics remain the best estimates yet produced by the federal government for monetizing the impacts of greenhouse gas emissions and are "generally accepted in the scientific community."63 60 DEIS at G-10. 61 DEIS at G-10. 62 See e.g. Jayni Hein et al. Pipeline Approvals and Greenhouse Gas Emissions (Policy Integrity Report, Apr. 2019) at 40-41 on how agencies should use expert judgement to make such assessments. 63 See 40 C.F.R. § 1502.22(b)(4).	*(see above)*
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	9	Climate and Meteorology	Monetization Is Appropriate and Useful in Any Decision with Potentially Significant Climate Impacts, Not Just Regulations BLM argues that use of the IWG's social cost metrics is inappropriate for this plan because it "is not a rulemaking for which the [social cost of carbon] protocol was originally developed."64 But this argument misses the point: BLM fails to explain why those metrics should not be used in environmental impact statements when they provide the best method to convey the potentially significant climate impacts of a plan that would contribute substantially to greenhouse gas emissions. 64 DEIS at G-9.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	10	Climate and Meteorology	Some of the potentially significant incremental impacts on the environment that the social cost of greenhouse gas protocol captures-and which the DEIS fails to meaningfully analyze-include property lost or damaged; impacts to agriculture, forestry, and fisheries; impacts to human health; changes in fresh water availability; ecosystem service impacts; impacts to outdoor recreation and other non-market amenities; and some catastrophic impacts, including potentially rapid sea-level rise, damages at very high temperatures, or unknown events.67 A key advantage of using the social cost of greenhouse gas tool is that each physical impact-such as sea-level rise and increasing temperatures-need not be assessed in isolation. Instead, the social cost of greenhouse gases tool conveniently groups together a multitude of climate impacts and, consistent with NEPA regulations,68 enables agencies to assess whether all those impacts are cumulatively potentially significant and to then compare those impacts with other impacts or alternatives using a common metric. 67 These impacts are all included to some degree in the three integrated assessment models (IAMs) used by the IWG (namely, the DICE, FUND, and PAGE models), though some impacts are modeled incompletely, and many other important damage categories are currently omitted from these IAMs. Compare 2010 TSD, supra note 14; with Peter Howard, Omitted Damages: What's Missing from the Social Cost of Carbon (Cost	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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(see above)	*(see above)*	*(see above)*	*(see above)*	10 *(cont.)*	*(see above)*	of Carbon Project Report, 2014), http://costofcarbon.org/files/Omitted_Damages_Whats_Missing_From_the_Social_Cost_of_Carbon.pdf. For other lists of actual climate effects, including air quality mortality, extreme temperature mortality, lost labor productivity, harmful algal blooms, spread of West Nile virus, damage to roads and other infrastructure, effects on urban drainage, damage to coastal property, electricity demand and supply effects, water supply and quality effects, inland flooding, lost winter recreation, effects on agriculture and fish, lost ecosystem services from coral reefs, and wildfires, see EPA, Multi-Model Framework for Quantitative Sectoral Impacts Analysis: A Technical Report for the Fourth National Climate Assessment (2017); U.S. Global Change Research Program, Climate Science Special Report: Fourth National Climate Assessment (2017); EPA, Climate Change in the United States: Benefits of Global Action (2015); Union of Concerned Scientists, Underwater: Rising Seas, Chronic Floods, and the Implications for U.S. Coastal Real Estate (2018). 68 40 C.F.R. § 1508.27(b)(7) (explaining that actions can be significant if related to individually insignificant but cumulatively significant impacts).	*(see above)*

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Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	12	Climate and Meteorology	In 2016, the IWG published updated central estimates for the social cost of greenhouse gases: $50 per ton of carbon dioxide, $1440 per ton of methane, and $18,000 per ton of nitrous oxide (in 2017 dollars for year 2020 emissions).81 Agencies must continue to use estimates of a similar or higher82 value in their analyses and decision making. A recent Executive Order disbanding the IWG-which BLM credits in part for its decision not to monetize climate impacts 83-does not change the fact that the IWG estimates still reflect the best available data and methodologies. 81 U.S. Interagency Working Group on the Social Cost of Greenhouse Gases, “Technical support document: Technical update of the social cost of carbon for regulatory impact analysis under executive order 12866 & Addendum: Application of the methodology to estimate the social cost of methane and the social cost of nitrous oxide” (2016), available at https://obamawhitehouse.archives.gov/omb/oira/social-cost-of-carbon. 82 See, e.g., Richard L. Revesz et al., Global Warming: Improve Economic Models of Climate Change, 508 NATURE 173 (2014) (explaining that current estimates omit key damage categories and, therefore, are very likely underestimates). 83 DEIS at G-9.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	15	Climate and Meteorology	More importantly, there is widespread consensus that a central estimate calculated at a 3% or lower discount rate, or else using a declining discount rate, is most appropriate, while a 7% discount rate would be wholly inappropriate in the context of intergenerational climate damages. Because of the long lifespan of greenhouse gases and the long-term or irreversible consequences of climate change, the effects of today's emissions changes will stretch out over the next several centuries. The time horizon for an agency's analysis of climate effects, as well as the discount rate applied to future costs and benefits, determines how an agency treats future generations. Current central estimates of the social cost of greenhouse gases are based on a 3% discount rate and a 300-year time horizon. Executive Order 13,783 disbanded the Interagency Working Group in March 2017 and instructs agencies to reconsider the “appropriate discount rates” when monetizing the value of climate effects.161 By citing the official guidance on typical regulatory impact analyses (namely, Circular A¬4), the Order implicitly called into question the IWG's choice not to use a 7% discount rate. However, use of a 7% discount would not only be inconsistent with best economic practices but would violate NEPA's requirements to consider potentially significant future impacts. 161 Exec. Order No. 13,783 § 5(c).	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	3	Climate and Meteorology	BLM Must Assess Potentially Significant Incremental Climate Impacts, Not Just the Volume of Emissions The tons of greenhouse gases emitted by a project are not the “actual environmental effects” under NEPA. Rather, the potentially significant incremental climate impacts caused by those emissions must be analyzed and disclosed to the public, including:14 · property lost or damaged by sea-level rise, coastal storms, flooding, and other extreme weather events, as well as the costs of protecting vulnerable property and resettling following property losses; · changes in energy demand, from temperature-related changes to the demand for cooling and heating; · lost productivity and other impacts to agriculture, forestry, and fisheries, due to alterations in temperature, precipitation, CO2 fertilization, and other climate effects; · human health impacts, including cardiovascular and respiratory mortality from heat-related illnesses, changing disease vectors like malaria and dengue fever, increased diarrhea, and changes in associated pollution; · changes in fresh water availability; · ecosystem service impacts; · impacts to outdoor recreation and other non-market amenities; and · catastrophic impacts, including potentially rapid sea-level rise, damages at very high temperatures, or unknown events.15 14 These impacts are all included to some degree in the three integrated assessment models (IAMs) used by the IWG (namely, the DICE, FUND, and PAGE models), though some impacts are modeled incompletely,	The scope of the analysis for this IAP/EIS is to disclose the direct and indirect impacts of the range of alternatives and their cumulative contribution to impacts on the evaluated resources, including climate change. As described in Appendix F, Section F.4.1, greenhouse gas emissions reported, in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	and many other important damage categories are currently omitted from these IAMs. Compare Interagency Working Group on the Social Cost of Carbon, Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis at 6-8, 29-33 (2010), https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social- Cost-of-Carbon-for-RIA.pdf [hereinafter 2010 TSD]; with Peter Howard, Omitted Damages: What's Missing from the Social Cost of Carbon (Cost of Carbon Project Report, 2014), http://costofcarbon.org/files/Omitted_Damages_Whats_Missing_From_the_Social_Cost_of_Carbon.pdf. For other lists of actual climate effects, including air quality mortality, extreme temperature mortality, lost labor productivity, harmful algal blooms, spread of West Nile virus, damage to roads and other infrastructure, effects on urban drainage, damage to coastal property, electricity demand and supply effects, water supply and quality effects, inland flooding, lost winter recreation, effects on agriculture and fish, lost ecosystem services from coral reefs, and wildfires, see EPA, Multi-Model Framework for Quantitative Sectoral Impacts Analysis: A Technical Report for the Fourth National Climate Assessment (2017); U.S. Global Change Research Program, Climate Science Special Report: Fourth National Climate Assessment (2017); EPA, Climate Change in the United States: Benefits of Global Action (2015); Union of Concerned	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	Scientists, Underwater: Rising Seas, Chronic Floods, and the Implications for U.S. Coastal Real Estate (2018). 15 For additional discussion of the climate impacts caused by greenhouse gas emissions, see Intergovernmental Panel on Climate Change, Global Warming of 1.5 ?: Summary for Policymakers 9-12 (Valérie Masson-Delmotte et al. eds., 2018), available at https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_version_stand_alone_LR.pdf.	*(see above)*
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	6	Climate and Meteorology	Monetization Provides the Required Informational Context that Volume Estimates Alone Lack NEPA requires sufficient informational context. Yet the limited context that BLM provides for the plan's projected greenhouse gas emissions-namely, comparing such totals to largely irrelevant volumes of greenhouse gas emissions including the U.S. greenhouse gas inventory27-provides a confusing and inadequate picture that attempts to minimize the impacts of the plan's substantial emissions.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.
Paul	Iliana	Institute for Policy Integrity at NYU School of Law	29271	14	Climate and Meteorology	The DEIS complains that the "range" of estimates for the social cost of greenhouse gases-which is largely a function of using different assumptions about the discount rate-makes the metric not useful.152 Not only was this line of thinking rejected by the Ninth Circuit in Center for Biological Diversity-"while . . . there is a range of values, the value of carbon emissions reduction is certainly not zero"153-but the range of values recommended by the Interagency Working Group154 and endorsed by	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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(see above)	*(see above)*	*(see above)*	*(see above)*	14 *(cont.)*	*(see above)*	the National Academies of Sciences155 is rather manageable. In 2016, the IWG recommended values at discount rates from 2.5% to 5%, calculated as between $12 and $62 for year 2020 emissions.156 Numerous federal agencies have had no difficulty either applying this range in their environmental impact statements or else focusing on the central estimate at a 3% discount rate.157 In August 2017, the Bureau of Ocean Energy Management applied the IWG's range of estimates calculated at three discount rates (2.5%, 3%, and 5%) to its environmental impact statement for an offshore oil development plan,158 and called this range of estimates “a useful measure to assess the benefits of CO2 reductions and inform agency decisions.”159 And just last month, the Department of Energy explained that the “central value” of 3 percent was “consistent with estimates provided in the economics literature and OMB's Circular A-4 guidance for the consumption rate of interest.”160 152 DEIS at G-10. 153 538 F.3d at 1200. 154 See 2016 TSD, supra note 24. 155 See National Academies of Sciences, Assessment of Approaches to Updating the Social Cost of Carbon (2016) [hereinafter First NAS Report] (endorsing continued near-term use of the IWG numbers); in 2017, the NAS recommended moving to a declining discount rate, see National Academies of Sciences, Valuing Climate Damages (2017) [hereinafter Second NAS Report]. 156 2016 TSD, supra note 24. The values given here are in 2007$. The IWG also	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	14 *(cont.)*	*(see above)*	recommended a 95th percentile value of $123. 157 E.g., BLM, Envtl. Assessment-Waste Prevention, Prod. Subject to Royalties, and Res. Conservation at 52 (2016); BLM, Final Envtl. Assessment: Little Willow Creek Protective Oil and Gas Lease, DOI-BLM-ID-B010-2014-0036-EA, at 82 (2015); Office of Surface Mining, Final Envtl. Impact Statement-Four Corners Power Plant and Navajo Mine Energy Project at 4.2-26 to 4.2-27 (2015) (explaining the social cost of greenhouse gases “provide[s] further context and enhance[s] the discussion of climate change impacts in the NEPA analysis.”); U.S. Army Corps of Engineers, Draft Envtl. Impact Statement for the Missouri River Recovery Mgmt. Project at 3-335 (2016); U.S. Forest Serv., Rulemaking for Colorado Roadless Areas: Supplemental Final Envtl. Impact Statement at 120-123 (Nov. 2016) (using both the social cost of carbon and social cost of methane relating to coal leases). 158 BOEM, Liberty Development Project: Draft Environmental Impact Statement, at 4-247 (2017). 159 Id. at 3-129. 160 See e.g., Energy Conservation Program: Energy Conservation Standards for Uninterruptible Power Supplies, 85 Fed. Reg. 1447, 1480 (Jan. 10, 2020), supra note 121.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Adams	Jim	National Parks Conservation Association	29262	15	Climate and Meteorology	The DEIS also fails to estimate the costs of greenhouse gas emissions that will result from the proposed IAP, despite available tools to do so; fails to consider the effects of the proposed alternatives in the context of a rapidly warming Arctic; and fails to quantify and consider the effects of black carbon. BLM's analysis must reflect the severity of the threat posed by climate change and address the significance of emissions under the proposed alternatives	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.
Fisher	Kevin	North Slope Borough	29290	42	Climate and Meteorology	Appendix G-1 -Affected Environment * Insert the citation: 'WMO Statement on the State ofthe Global Climate in 2018. Report # WMO-No. 1233. ISBN 978-92-63-11233-0' after (IPCC, 2014; insert here).	The Final IAP/EIS has been updated to include the World Meteorological Organization (WMO) 2019 document as a reference in Section G.1 of Appendix G.
Fisher	Kevin	North Slope Borough	29290	43	Climate and Meteorology	Appendix G-1 -Greenhouse Gases and Climate Change Overview * 'World Meteorological Organization, 2019' and the end ofthe sentence 'Continued emissions of GHGs are expected to continue to warm the planet in the future.'	The Final IAP/EIS has been updated to include the World Meteorological Organization (WMO) 2019 document as a reference in Section G.1 of Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hartsig	Andrew	Ocean Conservancy	29278	5	Climate and Meteorology	BLM's draft IAP/EIS also falls short in its consideration of climate change impacts. There is no serious dispute that anthropogenic emission of greenhouse gases causes climate change, or that climate change can have substantial, harmful impacts-particularly in the Arctic. The draft IAP/EIS fails to recognize the importance of climate change or the impacts that will result from emissions related to activities authorized by the IAP. In particular, the draft IAP/EIS does not adequately quantify or consider the impacts related to the emission of black carbon.	Climate change and its impacts on the Arctic and elsewhere have been discussed in detail in Section 3.2.1 and Appendix G (Sections G.1 to G.3). Emissions due to potential future activities in the NPR-A following the IAP/EIS have also been estimated in Section 3.2.1 and Section G.3. In particular, regarding black carbon, Section 3.2.1 of the DEIS and Appendix G (Sections G.1.1 and G.3) include information on black carbon and its potential effects on climate, based on available, peer-reviewed literature. Section G.3 also lists the sources of black carbon and notes that black carbon emissions are included in the $PM_{2.5}$ emissions that are quantified in the air quality analysis (Section 3.2.2). The Final IAP/EIS has been updated to add clarity; the BLM has revised the following sentence in Section G.3 from “Black carbon emissions are not considered in this assessment of climate impacts” to “Black carbon emissions are not explicitly quantified in this assessment of climate impacts.” The BLM has made the following addition to Section G.3: “The effect of black carbon on arctic climate is complex and still an active area of research. There are still many uncertainties to be resolved by the scientific community to better understand the complex mechanisms and feedbacks between black carbon and its effect on Arctic climate. Therefore, it is not possible to quantitatively assess the effect of black carbon emissions from potential future projects in the NPR-A on global climate change at this time.”

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Meyer	Kennon	Patagonia Works	27179	4	Climate and Meteorology	However, evaluating the impacts of climate change on Arctic drilling practices is only meaningful if it is paralleled with an analysis of how the approved drilling and development will itself intensify the national effects from climate change. The DEIS details how climate change has impacted the NPR-A, but this analysis must be extended to discuss how additional oil and gas leasing approved by the DEIS is likely to expedite these climate change impacts and further harm both Alaska and the continental United States. A simple discussion of the quantity of increased GHG emissions does not adequately extrapolate the analysis to one about the true impacts of climate change.	As described in Appendix F, Section F.4.1, greenhouse gas emissions reported, in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative.
Meyer	Kennon	Patagonia Works	27179	7	Climate and Meteorology	The recent warm temperatures in the Arctic, in conjunction with emerging science, have shown that mid-latitude circulation is continuously influencing observed Arctic temperatures and sea ice.53 Observational studies suggest that it is no coincidence that temperatures have changed drastically in the Arctic as the Northern Hemisphere has experienced large-scale circulation. Indeed, "[t]he rapidly-warming Arctic is shrinking the temperature difference between that region and the lower latitudes, which in turn weakens the jet stream. As a result, rather than a fast-moving flow of air, the jet stream increasingly is taking a slow, meandering path across the Northern Hemisphere."54 The DEIS should provide a robust discussion of this problematic connection. 53 Id. 54 Supra note 29.	The scope of the analysis for this IAP/EIS is to disclose the direct and indirect impacts of the range of alternatives and their cumulative contribution to impacts on the evaluated resources. An exhaustive examination of the effects of global climate change is outside the scope of this analysis.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Meyer	Kennon	Patagonia Works	27179	10	Climate and Meteorology	This failure of the DEIS to consider economic impact is further evidenced by the elimination of any analysis considering the Social Cost of Carbon ("SCC"). In eliminating this analysis, the BLM identifies that there is no "requirement to apply the SCC protocol to management planning decisions like this EIS."58 However, just because the agency is no longer required to conduct the analysis at the direction of the Interagency Working Group, does not mean that the analysis should not be included within the EIS. As explained both in this comment and in the DEIS, the effects of climate change are immense. The BLM should not ignore critical climate change considerations at a time when climate change impacts are sweeping the Earth. 58 DEIS vol. 2 Appendix G at G-9.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project-level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described Section G.2 of Appendix G.
Meyer	Kennon	Patagonia Works	27179	5	Climate and Meteorology	The DEIS climate change analysis should contain a discussion of the sequential impacts from permafrost carbon releases on further climate change potential. This thawing of permafrost, release of carbon, and acceleration of global warming creates a vicious cycle through which more permafrost melts and more global warming occurs, until the atmosphere has degraded beyond return. Given the severity of this vicious process, any DEIS containing reasonable alternatives must provide further climate change analysis.	The acceleration of climate feedback due to permafrost thawing carbon releases and the effect of permafrost thawing on communities are discussed in Climate and Meteorology, Sections G.1.4 and G.1.6.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Meyer	Kennon	Patagonia Works	27179	6	Climate and Meteorology	Although the DEIS provides some quantitative values for how both the No-Action Alternative and the Action Alternative will contribute to GHG emissions, it fails to tie the two pieces together by providing a clear description of how the increased GHG emissions will further deteriorate areas of the Alaskan Arctic and continental United States. In order for the public, for whom the DEIS was presumably drafted to fully comprehend the context of the qualitative data, the DEIS should provide an explanation for how, specifically, the climate will be impacted by the Alternatives. Moreover, the DEIS makes no attempt to explain how warming in the Artic will impact climate in the lower 48 States. While the warming temperatures in the Alaskan Arctic are concerning in and of themselves, they also exacerbate a clear and present danger for the remainder of the United States. Scientists study a link between the profound warming effect and environmental changes coming from the Alaskan Arctic and the extreme weather events across the Northern Hemisphere mid-latitudes, including throughout the continental United States.51 Some suggest that "[a]tmospheric circulation patterns connect the climates of the Arctic and the contiguous United States."52 51 Judah Cohen, et al., Recent Arctic amplification and extreme mid-latitude weather, 7 NATURE GEOSCIENCE, at 627-637 (2014), https://doi.org/10.1038/ngeo2234 52 Taylor, P.C., W. Maslowski, J.	As described in Appendix F, Section F.4.1, greenhouse gas emissions, reported in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative. The scope of the analysis for this IAP/EIS is to disclose the direct and indirect impacts of the range of alternatives and their cumulative contribution to impacts on the evaluated resources. The effects of global climate change on resources in the Arctic are considered and disclosed in the affected environment sections.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	Perlwitz, and D.J. Wuebbles, 2017: Arctic changes and their effects on Alaska and the rest of the United States. In: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 303-332, doi: 10.7930/J00863GK	*(see above)*
Meyer	Kennon	Patagonia Works	27179	8	Climate and Meteorology	The DEIS makes no effort to identify the potential costs associated with GHG emission increases. “The signature effects of human-induced climate change-rising seas, increased damage from storm surge, more frequent bouts of extreme heat-all have specific, measurable impacts on our nation's current assets and ongoing economic activity.”55 Scientists are discovering the ways that climate change currently and in the future will lead to higher health and energy costs and in addition to the damage that will result to property and agriculture. 55 Risky Business: The Economic Risks of Climate Change in the United States, Risky Business (June 2014), https://riskybusiness.org/report/national/	The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.
Meyer	Kennon	Patagonia Works	27179	11	Climate and Meteorology	The SCC analysis is meant to be a comprehensive estimate of climate change damages, and, accordingly, it includes changes in net agricultural productivity, human health, property damages from increased flood risk, and changes in energy system costs, such as generally reduced costs for heating and increased costs for air	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	11 *(cont.)*	*(see above)*	conditioning.59 The use of the SCC analysis has been upheld by federal courts as a method of informing the public of the harmful impacts of carbon emissions.60 Thus, by failing to consider an SCC calculation, a federal agency fails to fully incorporate essential climate change policy considerations into its decision making. The SCC analysis is a calculation about how the agency action will further burden the general population and, effectively, it measures the action's cost to society. And because the NEPA process is intended to give the public a fair opportunity to understand the implications of agency action, the SCC provides essential data that the public needs to adequately process the effects of agency action. 59 The Social Cost of Carbon: Estimating the Benefits of Reducing Greenhouse Gas Emissions, Environmental Protection Agency, https://19january2017snapshot.epa.gov/climatechange/social-cost-carbon_.html 60 See, e.g., High Country Conservation Advocates v. United States Forest Serv., 52 F. Supp. 3d 1174 (D. Colo. 2014).Without considering the full economic impact of their actions, the BLM has not conducted a complete analysis of the alternatives. These calculations and considerations are essential in order for the agency to truly convey the extent of an alternative's impacts. The DEIS should include a SCC analysis.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Meyer	Kennon	Patagonia Works	27179	19	Climate and Meteorology	In Section 3.5 of the DEIS, the BLM summarily declares that GHG emissions are an “unavoidable” adverse effect of all the alternatives.107 This is simply false. There are numerous means to mitigate such emissions. For example, the use of renewable energies, use of increasingly energy efficient resources, development of climate- and resources-friendly recycling and waste-management programs, reduction of particularly harmful climate-damaging GHG, and implementation of more sustainable federal policies would all help to mitigate emissions and their impacts.108 With the right mitigation measures, transformation toward a sustainable and low-emission economy and supply structure is possible, despite the BLM's claims of “unavoidable” consequences. 107 DEIS vol. 1 at 3-329. 108 Mitigating Greenhouse Gas Emissions, International Climate Initiative, https://www.international-climate-initiative.com/en/issues/mitigation/	The emissions of greenhouse gases is unavoidable under all alternatives. A zero emission oil and gas development is not possible with current technology.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Little	Suzanne	The Pew Charitable Trusts	26136	8	Climate and Meteorology	Physical impacts of thawing permafrost include decreased bearing capacities of building and pipeline foundations, damage to road surfaces, deterioration of reservoirs and impoundments that rely on permafrost for wastewater containment, reduced operation of ice and snow roads in winter, and damage to linear infrastructure, such as roads and power lines. Longer sea ice-free seasons, higher ground temperatures, and relative sea level rise are expected to exacerbate flooding and accelerate erosion in many regions, leading to the loss of terrestrial habitat in the future and in some cases requiring entire communities or portions of communities to relocate to safer terrain. Anticipated climate impacts have not been adequately evaluated and addressed in the development of the Draft IAP.	The BLM used the best information available at the time of the development of the IAP/EIS to evaluate changes to the affected environment due to climate change. New information presented during the public comment period will be reviewed and included, as appropriate.
Mazzola	Lisa	–	27154	1	Climate and Meteorology	In the midst of a climate crisis, the Arctic faces plenty of threats without this attempt to open additional areas to oil and gas. Climate change must be addressed in the EIS, as is required under NEPA. We must incorporate impacts on permafrost, erosion, vegetation, ecosystem changes, impacts to infrastructure, and health into analysis of development impacts, including direct, indirect, and cumulative. Even under the existing IAP, there are unacceptable impacts to our climate, animals, water, land, and people, due to the rapid increase of oil activities in the Reserve.	The BLM used the best information available at the time of the development of the IAP/EIS to evaluate changes to the affected environment due to climate change. New information presented during the public comment period will be reviewed and included, as appropriate. Unavoidable adverse impacts on the resources analyzed are disclosed in Section 3.5 of the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schoen	John	_	26974	7	Climate and Meteorology	Finally, the increased carbon emissions resulting from exploration, development, and extraction of oil from the ground should be calculated and their effects evaluated in terms of their contribution to climate change. In an era when most nations' of the world are trying to move beyond fossil fuels, it seems short-sighted to further expand petroleum exploration and development in the NPRA which already has a vigorous energy development program.	As described in Appendix F, Section F.4.1, greenhouse gas emissions, reported in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative.
Strailey	Kaarle	_	29135	4	Climate and Meteorology	BLM failed to consider a full range of reasonable alternatives by not analyzing a truly environmentally protective alternative that adequately addresses and accounts for impacts of, and contributions to, climate change. Even under the existing 2013 IAP, there are unacceptable impacts to our climate, wildlife, water, land, and people, due to the rapid increase of oil activities in the Reserve. BLM should consider a more protective alternative. Alaska has warmed at a rate more than twice that of the rest of the US over the past 60 years. This is already causing, and will continue to cause, sea-level rise, sea-ice loss, coastal erosion, ocean warming and acidification, changes in river dynamics, and permafrost thaw. Expanding oil and gas production in the Reserve contradicts scientific and international consensus that we must act immediately to address climate change and rapidly transition away from fossil fuel use. The DEIS fails to consider any alternative that would halt or significantly limit leasing, and ultimately, production. As scientific consensus has concluded, if we are	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

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(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	to avoid climate catastrophe, new fossil fuel production and infrastructure must be halted, and most existing production must be phased out. Among the numerous scientific reports and studies that have arrived at similar conclusions, a 2015 study determined that "all Arctic [oil and gas] resources should be classified as unburnable," because "development of [oil and gas] resources in the Arctic . . . [is] incommensurate with efforts to limit average global warming to 2°C." [C. McGlade & P. Ekins, The geographical distribution of fossil fuels unused when limiting global warming to 2°C, 517 NATURE 187, 187, 190 (2015)].	*(see above)*

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Warren	James	–	5578	1	Climate and Meteorology	Climate change and cumulative development impacts are bringing increased pressure and great uncertainty to the Western Arctic. The pace of development and the pace of climate change are accelerating in the Arctic, making areas that have remained free from development more and more precious. The region is experiencing unprecedented warming, which is manifesting in erosion, permafrost melt, and greening of the tundra. Keeping areas free from development is vital to give birds and wildlife the space they need to weather these changes and potentially adapt. NOAA has just released its 2019 Arctic Report Card: BLM should read this document carefully and take into account the clear science being communicated there. It is vital to slow down and understand the cumulative impacts of industrial development and fossil fuel extraction.	Suggested references were reviewed for applicable to the IAP/EIS and were incorporated into relevant sections.

Z.3.10 Cooperating Agency Relationship

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Obed	Sarah	Doyon, Limited	27862	6	Cooperating agency relationships	In identifying and designating corridors, BLM also should obtain input from affected industries to ensure that any corridors to be designated are appropriately located, cost-effective, and commercially viable, as well as take into account technological innovations that help reduce surface disturbance and potential environmental impacts. To the maximum extent possible consistent with public health and safety and resource values, these designated corridors should reflect a route desired by the State of Alaska, the North Slope Borough, and ASRC.	This plan makes no decision regarding the exact location of such corridors, and potential corridors shown on maps are for representational purposes only. Specific pipelines will be analyzed in subsequent NEPA analysis when a pipeline project is proposed, and consultation with affected stakeholders will occur at that time.

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Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	9	Cooperating agency relationships	The draft IAP/EIS Executive Summary describes BLM's consultation with the Working Group. We appreciate mention of this, and the steps BLM has taken to engage with the Working Group. However, we request that the description of the Working Group be updated. The Working Group is currently referred to as “a group comprised of community representatives from every community that subsists from the Western Arctic Caribou Herd” (p.ES-8). This statement both overrepresents and underrepresents the true composition of the Working Group. While every community in and near the range of the WACH is represented on the Working Group, there is not a representative “from every community.” Rather, some Working Group members represent multiple communities. As a result, there are 14 seats representing 41 subsistence communities as well as two additional seats for hunters from Fairbanks and Anchorage. This should be clarified. In addition, the statement in the draft IAP/EIS ignores the contributions of the other members of the Working Group that represent hunting guides, reindeer herders, transporters and conservationists. As was stated at the outset of this letter, the Working Group is a group of diverse stakeholders that reflects the many people that use, value and depend on the WACH. We would appreciate if BLM also reflects that diversity in the final IAP/EIS.	Appendix C has been updated to clarify the role of the Western Arctic Herd Working Group.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Patil	Vijay	_	27372	4	Cooperating agency relationships	the Bureau of Land Management should request feedback from the U.S. Geological Survey on the scientific accuracy of the draft NPR-A Integrated Activity Plan/Environmental Impact Statement, particularly for sections that were informed by U.S. Geological Survey analyses.	The USGS declined being a cooperating agency in this IAP/EIS.

Z.3.11 Cultural Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	107	Cultural Resources	Page 3-218 Paragraph 1 Cultural resource impacts (continued from above) The quote in this section that describes cultural site disturbance is inflammatory and, in fact, presents an illegal activity that ConocoPhillips does not condone. The BLM does not provide supporting evidence that the disturbance occurred nor is there discussion as to the validity or investigation of the claim. By omitting a qualification or acknowledgement that the quote is not a validated fact, the BLM presents this unattributed statement as fact and misleads the public into believing that exploration and seismic survey activities have caused cultural site disturbance. ConocoPhillips strongly disagrees with this approach and recommends the BLM consider removing all inflammatory or accusatory quotations.	This quote came from a 2009 study that asked individuals to document past impacts they had personally experienced. The impact was identified as occurring 21 years ago. The quotes are already qualified as observations/testimony/traditional knowledge by local residents and are not presented as a validated fact by the BLM. The context of these passages does not imply that seismic surveys do disturb cultural sites, but rather that they can disturb them and that people remain concerned about this. These passages highlight the need for responsible planning, which is the goal of this IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	106	Cultural Resources	Page 3-218 Paragraph 1 Cultural resource impacts Oil and gas exploration activities, including seismic projects, for more than 20 years, have included pre-season (i.e., during summer) archeological survey by aircraft and ground search, and consultation with professional and local historical and cultural experts to prevent any encroachment on traditional Native sites. During winter operations, local community members have been employed as subsistence representatives to provide additional knowledge and oversight of activities. State and local (North Slope Borough) land use stipulations require cultural sites be identified and avoided, with buffer zones restricting access. Exploration and seismic personnel are trained to avoid these known sites and are obligated to report sightings of suspected sites. (continued below).	This quote came from a study that asked individuals to document past impacts they had personally experienced. The impact was identified as occurring 21 years ago. The quotes are already qualified as observations/testimony/traditional knowledge by local residents and are not presented as a validated fact by the BLM. The context of these passages does not imply that seismic surveys do disturb cultural sites, but rather that they can disturb them and that people remain concerned about this. These passages highlight the need for responsible planning, which is the goal of this IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	219	Cultural Resources	Without sufficient studies, BLM comparison of DEIS alternatives are meaningless. There is simply too little information known about the values of the resources on those lands. BLM must perform, at minimum, targeted surveys and consultation for the large special areas it proposes to open for leasing under the new alternatives to gain insight into the potential impacts.1133 1133 BLM Manual 8110 at .21(A)(2)(f)(2)(i) (Dec. 3, 2004).	NEPA does not require conducting new studies to evaluate impacts.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	225	Cultural Resources	Overall, the current DEIS does not accurately describe and analyze the impacts to the Reserve for cultural and archeological resources since BLM is missing significant information that is necessary at this point for the agency to make an informed decision about management of the Reserve and comply with the NHPA. The agency should survey all new areas opened by action alternatives. Without further information, the selection of an alternative that considers impacts to cultural resources is arbitrary because BLM never obtained or considered information necessary to make such an assessment. In addition, consultation with the SHPO is appropriate both now and as individual projects are implemented.	The State Historic Preservation Office acknowledged that the NPR-A IAP/EIS as a land use plan amendment is an administrative action, without the potential to affect historic properties. Formal consultations with the SHPO may be required when individual projects are implemented.
Donahey	Leah	Alaska Wilderness League	29320	218	Cultural Resources	BLM has failed to take a hard look at the impacts on archeological and cultural resources in the DEIS. Inventory and consultation under section 106 of the National Historic Preservation Act of 1966 (NHPA)1123 is necessary to inform the required NEPA analysis. NHPA Section 106 requires that BLM outline how Federal agencies engage in consultation, identify historic properties, determine whether and how such properties may be affected, and resolve adverse effects.1124 For the DEIS, BLM represents that these resources will be inventoried at a later time, when projects are permitted.1125 This is inappropriate to protect the larger cultural landscape as knowledge of these resources is severely limited at this time - only 3% of the Reserve is	The State Historic Preservation Office acknowledged that the NPR-A IAP/EIS as a land use plan amendment, is an administrative action, without the potential to affect historic properties. Formal consultations with the SHPO may be required when individual projects are implemented.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	218 *(cont.)*	*(see above)*	inventoried.1126 BLM needs to do extensive studies in order to make informed decisions to select an appropriate alternative that sufficiently protects cultural resources and complies with NHPA Section 106.1127 BLM must fully comply with the requirements in the NHPA's implementing regulations to determine how proposed activities could affect cultural resources listed on, or eligible for inclusion in, the National Register of Historic Places and mitigate impacts to known and future resources. ---- 1123 54 U.S.C. § 306108. 1124 Id. § 800.8(c)(1)(ii); In addition, the NHPA requires coordination and consultation with "Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, the Archeological Resources Protection Act, and agency-specific legislation, such as section 4(f) of the Department of Transportation Act." id. § 800.3(b). 1125 1 DEIS at 3-215. 1126 Id. at 3-216 to -7. 1127 36 C.F.R. § 800.1 et seq.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hugo	Charles Sollie	Anaktuvuk Pass	29330	2	Cultural Resources	We have ancestors and they're along the Umiat River in their burial sites there. And we also have entitlement to the Nigliq Channel area because that is our traditional trade fair site, and it belongs to nobody else. That should be duly noted. It belongs to the Nunamiut people. That has always been our trade fair site. Since the (indiscernible) knew about it and before anybody else knew about it, that has always been there. That's always been a major trade fair site. It's one of three that's well known through many generations. There's the Nigliq one that's well known there. There's the Kikiktagruk over in Kotzebue. That's well know. And also the Barter Island, that's well known. Those are three distinctive trade fair sites that were well known. Also the Lakupa (as heard) trade fair site. Those have a lot of bearing on us.	The Final IAP/EIS Section 3.4.2 has been updated to reflect this information.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	21	Cultural Resources	The authors of the IAP/EIS Appendix Y “Compilation” caution that some quotes may describe effects no longer applicable due to changes in methods. For example, advancements in seismic technology have eliminated cables and reduced the amount of equipment required to gather better data. BLM seems to have missed an opportunity to describe these types of innovations and best practices employed by industry to help mitigate previously observed impacts or explain how the proposed BMPs/ROPs have been developed as a result of the input. Instead of using the statements in a contextual analysis, BLM often leaves outdated or incorrect statements unanalyzed, which contributes to misleading impressions. The error is compounded in cases where BLM's own conclusions are based in part on such testimonials. ConocoPhillips recommends that BLM apply greater analytical rigor and balance to this new practice of quoting testimony.	Quoting testimony is not a new practice in IAP/EISs, and it resulted from stakeholder comments that local observations and traditional knowledge needed to be incorporated in IAP/EISs. The quoted testimonies have been removed from Chapter 3 of the Final IAP/EIS and have been replaced with summaries and references to see Traditional Knowledge appendix and traditional knowledge needed to be incorporated in EISs.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	108	Cultural Resources	Page 3-224 Last 3 paragraphs on page BLM cites information from the “updated Nuiqsut Paisanich” (also referenced as SRB&A 2018c). This documents was never finalized or approved by the entities in Nuiqsut (City of Nuiqsut, NVN, or Kuukpik Corporation). NSB is currently working on final version therefore the SRBA& document should not be used or quoted in BLM documents. (Note: In the Volume 1 Reference Section (Reference page 53), SRB&A 2018c is described as Nuiqsut Paisanich update, done for ConocoPhillips Alaska, Inc. This is incorrect. SRB&A performed this work under contract with the City of Nuiqsut who did not approve the final version. BLM should remove citations related to SRB&A 2018c from the document as it was not approved by Nuiqsut.	The reference has been updated to reflect the correct contract information. SRB&A completed its contract with the City of Nuiqsut and finalized the document (Nuiqsut Paisaŋich – A 2018 Addendum) under the terms of that contract. The NSB version will not change SRB&A's document, but SRB&A understands that it will include an updated planning portion to accompany its document. The new document will be a different document, comprised of the SRB&A 2018 Ethnographic Addendum and NSB's forthcoming Management Plan. Thus the integrity of the SRB&A's 2018 Nuiqsut Paisaŋich will remain and is appropriate to cite.
Henry	Lupita	Point Lay	27301	9	Cultural Resources	What about our historical sites, are they listed anywhere in the area?	Historic sites listed in the Alaska Heritage Resources Survey database have been considered and analyzed for this project. TLUI from the NSB were also reviewed at a high level, based on the IHLC's guidance. These datasets are confidential, so they are discussed but will not be published in the EIS. Additional more site-specific detailed analyses would occur with additional EIS related to project-specific developments should they occur in the future.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	1	Cultural Resources	I. Collaboration with local communities Of utmost importance is that the BLM makes every effort to include input from local stakeholders and user groups into the updated IAP/EIS. Development and the BLM's management of the NPR-A affect several Alaska Native communities directly, and VOICE feels that these communities should have direct, ongoing input into this process. As the BLM moves from Draft IAP/EIS to a final document, the BLM should center their work with local people to gather expertise on subsistence, economics, social interests, land use, the environment, archaeological and cultural resources, and Traditional Knowledge. The BLM should endeavor to be a good partner with local landowners and communities. The BLM's revision of the IAP/EIS provides an opportunity to enhance co-management between the agency and North Slope communities.	The BLM has offered consultation with appropriate ANCSA Corporations throughout the IAP/EIS process.

Z.3.12 Cumulative Impacts

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
McGuire	Rebecca	Alaska Shorebird Group	27169	5	Cumulative Impacts	The draft EIS limits the geographic scope of cumulative impacts to the NPR-A, the Arctic Coastal Plain, and associated nearshore marine waters.20 Yet, the text also indicates some effects on Arctic breeding grounds are likely to carry-over to migration or wintering areas (e.g., poor conditions on breeding grounds could negatively affect an individual's survival during migration or wintering). The importance of carry-over effects has been clearly shown in a variety of migratory species. e.g. 21,22,23 The draft EIS also states that most species are at risk on wintering areas, due to habitat changes and degradation. Thus, for many migratory species breeding in the NPR-A, stressors in the Arctic compound those faced elsewhere. This is particularly relevant for migratory species, which typically face a whole host of factors affecting their survival throughout their annual cycles.24 Consequently, it is simply wrong and unscientific to pretend that any negative effects experienced by animals due to activities permitted by the NPR-A IAP can be viewed in isolation. Cumulative effects must take into account factors that may hinder an animal's survival throughout its entire annual cycle. 20 NPR-A DIAP/EIS, p. 3-151. 21 Ma, Y., B. A. Branfireun, K. A. Hobson, and C. G. Guglielmo. 2018. Evidence of negative seasonal carry-over effects of breeding ground mercury exposure on survival of migratory songbirds. Journal of Avian Biology: e01656.	It would not be reasonable to consider bird habitat on all seven continents for purposes of evaluating reasonably foreseeable action that may affect birds outside of the North Slope. The IAP/EIS acknowledges that development in the NPR-A will add adverse impacts that are cumulative, but the geographic scope is confined to the area and its surroundings that BLM land management decisions can affect. Rosenberg et al. (2016) stated "Restoring and managing habitats on the breeding grounds may not succeed in reversing declines of many Watch List species without a similar investment in critical winter habitats south of the U.S." and "Striking new results illustrate that where a species spends the winter may be a better predictor of population declines than where it breeds." The Final IAP/EIS was updated in the Cumulative Impacts in Section 3.3.4 to clarify how birds could be further affected.

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(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	DOI: 10.1111/jav.01656. 22 Norris, D. R., and P. P. Marra. 2007. Seasonal interactions, habitat quality, and population dynamics in migratory birds. Condor 109:535-547. 23 Clausen, K. K., J. Madsen, and I. M. Tombre. 2015. Carry-over or compensation? The impact of winter harshness and post-winter body condition on spring-fattening in a migratory goose species. PlosOne [available at: https://doi.org/10.1371/journal.pone.0132312]. 24 Hope, D.D, C. Pekarik, M.C. Drever, P.A. Smith, C. Gratto-Trevor, J. Paquet, Y. Aubry, G. Donaldson, C. Friis, K. Gurney, J. Rausch, A.E. McKellar, and B. Andres. 2019. Shorebirds of conservation concern in Canada - 2019. Wader Study 126:88-100.	*(see above)*
Purtle	Joshua	California Office of the Attorney General	27340	12	Cumulative Impacts	The Draft EIS further fails to discuss the cumulative climate impact of expanded leasing in the Reserve with anticipated drilling in the Arctic National Wildlife Refuge's Coastal Plain. See Klamath-Siskiyou Wildlands Ctr., 387 F.3d at 997. As discussed, BLM has proposed to begin a leasing program in the Arctic Refuge in the near future. Such leasing will result in additional greenhouse gas emissions that will be cumulative with any emissions from expanded leasing under the Draft Plan for the Reserve. See Arctic Refuge EIS at 3-6 through 3-9. However, the Draft EIS's analysis of the cumulative climate impacts does not even mention the proposed Arctic Refuge leasing program. 2019 Draft EIS at 3-6 through 3-7 (greenhouse gas emissions). The Draft EIS thus	As noted by the BLM in Section 3.2.1 of the Draft IAP/EIS in Cumulative Impacts, the potential effects of greenhouse gas emissions are inherently a global cumulative effect. Given the global nature of the greenhouse gas (GHG) concern, the physical location of the emissions is less important; therefore, any potential future drilling in the Arctic National Wildlife Refuge's Coastal Plains is not any more relevant to the NPR-A IAP/EIS GHG analysis than other GHG emission sources outside the NPR-A in the world. Greenhouse gas emissions are used as a surrogate for climate change. The cumulative analysis reports emissions from projected production in the NPR-A, plus indirect emissions, due to use of the produced oil outside the NPR-A, as well as existing large sources from the EPA

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(see above)	*(see above)*	*(see above)*	*(see above)*	12 *(cont.)*	*(see above)*	fails to analyze and disclose all of the Draft Plan's potential climate impacts, as required by NEPA. See 40 C.F.R. § 1508.7 (agency must consider cumulative impacts of "past, present, and reasonably foreseeable future actions"); Klamath-Siskiyou Wildlands Ctr., 387 F.3d at 997.	Greenhouse Gas FLIGHT database within the NPR-A. Also, as noted in Section 3.2.1, potential cumulative climate impacts of global development and associated greenhouse gas emissions have been summarized above in Observed and Projected Climate Trends and Impacts in the Arctic and North Slope and are discussed extensively in the literature, including several reports by the Intergovernmental Panel on Climate Change and numerous scientific journals; hence, they are not repeated here. These types of cumulative climate impacts that are discussed implicitly include those from any greenhouse gas source in the world outside the NPR-A. As noted in Section 3.2.1 of the Draft IAP/EIS, to qualitatively assess the cumulative impact on climate change of the greenhouse gas emissions from the alternatives, it is useful to understand the magnitude of the proposed action's greenhouse gas emissions relative to local, regional, national, or sector-wide emissions (CEQ 2019). Examples of such comparisons have been presented for each alternative above. Because the NPR-A IAP/EIS GHG analysis considers the incremental petroleum production on a national and global basis, it is a cumulative analysis. The Final IAP/EIS has been updated with the following text in Section 3.2.1 (Climate and Meteorology, Cumulative Impacts) "based on reported national and global totals" to the end of the sentence "Examples of such comparisons have been presented for each alternative above."

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Schoen	John	_	26974	5	Cumulative Impacts	The FEIS should include a cumulative effects analysis of the impacts of petroleum exploration and development under each of the action alternatives of the new IAP on a sample of loons, waterfowl (including brant), and shorebirds, using the coastal plain of NPRA. Specific attention should be directed toward the Teshekpuk Lake Special Area and WatchList species.	The BLM cannot speculate on the number of birds affected or even the magnitude of impacts that would result from cumulative impacts from past, present, and reasonably foreseeable future actions. The Final IAP/EIS has been updated to further describe effects under each alternative on special status species and brant for which distributional data are available. Cumulative Impacts were revised to include qualitative descriptions of impacts on those species in the NPR-A. Special status species include the species considered most at risk by the BLM and USFWS. Watchlist species (Audubon designated) include those species and others less clearly at risk at this time. It is beyond the scope of this IAP/EIS to analyze all the Watchlist species.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	_	27093	8	Cumulative Impacts	Given the four alternatives and three development scenarios, the DEIS should model the cumulative impacts of increased predation, human disturbance, climate change and habitat loss and degradation on arcticola Dunlin in combination with the reduced survival rates this subspecies is already experiencing. As written, the DEIS glosses over what could be major impacts on a large proportion of an entire subspecies population in its prime, high density nesting area around Teshekpuk Lake.	Although the dunlin is of special concern due to population declines, it is not reasonable to model impacts of the alternatives on its population; it is one of many special status species and watchlist species in decline or vulnerable to decline. Specific effects from climate change and unproposed development are not quantifiable. While habitat loss and degradation on breeding areas will occur, the magnitude of habitat change from oil leasing and community development is expected to be low, affecting a small percentage of available habitat (NRC 2003); 3% of Prudhoe Bay is covered with gravel (Gilders and Cronin 2000). Tera (1993) estimated only 5% of shorebirds were displaced by direct and indirect effects for roads and pads, but loss of productivity was not observed (Troy and Carpenter 1990). Johnson et al. (2003) found that beyond 100 m, there was no reduction in nesting density of shorebirds and landbirds within 2 km of Alpine roads, pads, and airstrip. Furthermore, Bart et al. (2013) reported that they could detect no declines in bird density or productivity in the densest and oldest oil development on the North Slope (Prudhoe Bay), relative to surrounding areas. The IAP/EIS was updated to describe the dunlin's status, potential impacts from the alternatives on dunlin, and the Qupaluk Flyway Network site, which is a concentration area for arcticola dunlin within the Teshekpuk Lake Special Area.

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Donahey	Leah	Alaska Wilderness League	29320	6	Cumulative Impacts	BLM must fully analyze the potentially significant adverse cumulative effects of the GMT-1 and GMT-2 projects, along with the Willow Project, on subsistence, public health, and environmental justice in the context of this rapidly increasing development as part of this NEPA process. We question the ability of BLM to adequately consider the impacts of the Willow Plan in its baseline for the IAP draft EIS, given the status of the Clean Water Act 404 permit required for this project by the U.S. Army Corps of Engineers ("Corps") and the fact that there have been significant changes to the project that will require a supplemental EIS. Because there is not a Corps 404 permit application, the Willow draft EIS is missing critical information and analysis necessary to evaluate impacts to wetlands and hydrological resources from that project. We are deeply concerned that by proceeding so quickly with development reviews and approvals, while revising its IAP, BLM does not and cannot know the true extent of impacts from development it has authorized or is currently evaluating.	The proposed Willow development was included in the cumulative effects analysis for the Draft IAP/EIS. The cumulative effects analysis for the Final IAP/EIS includes an updated project description for the Willow development. The analysis of how the impacts of Willow will interact with the impacts of each alternative being considered in the IAP/EIS was based on the best available information at the time of drafting the Final IAP/EIS.

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Donahey	Leah	Alaska Wilderness League	29320	5	Cumulative Impacts	BLM is obligated to consider all potential impacts of the Willow proposal in the IAP EIS, as impacts from Willow and the future westward development it enables will likely accumulate with impacts from future activities under any revised IAP	The IAP/EIS takes into account recent discoveries and potential future developments, including Willow. The proposed Willow development was included in the cumulative effects analysis for the Draft IAP/EIS. The cumulative effects analysis for the Final IAP/EIS includes an updated project description for the Willow development. The analysis of how the impacts of Willow will interact with the impacts of each alternative being considered in the IAP/EIS was based on the best available information at the time of drafting the Final IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	57	Cumulative Impacts	BLM's cumulative impacts analysis fails to contain the “quantified or detailed information” required. Instead, it largely consists of general statements regarding potential effects and contains very little substantive information. BLM has failed to identify and fully consider the cumulative effects of leasing, which requires considering all subsequent phases of oil and gas activities, in addition to all reasonably foreseeable future actions both in and around the Reserve, to meet its obligations under NEPA to evaluate the impacts of activities.380 As discussed below, there are multiple fundamental flaws in BLM's development scenario and underlying assumptions related to its cumulative impacts assessment. These flaws have led BLM to dramatically underestimate and skew the impacts analysis in the DEIS. BLM should revise its impacts analysis to fully address these flaws and new information, and provide an additional opportunity for the public to weigh in	Quantitative information is considered in the analysis, where available; otherwise a qualitative analysis is provided.

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(see above)	*(see above)*	*(see above)*	*(see above)*	57 *(cont.)*	*(see above)*	on that revised draft. Without all of this key information incorporated into BLM's analysis, BLM underestimates the likely impacts of development and the public is unable to assess the actual range of impacts likely to occur from the various alternatives. ------------- 380 See Council on Environmental Quality, Executive Office of the President, Considering Cumulative Effects Under the National Environmental Policy Act at 1 (Jan. 1997) ("The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects. Specifically, NEPA requires that all related actions be addressed in the same analysis.").	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	79	Cumulative Impacts	For such an ambitious project, the DEIS provides a wholly inadequate analysis of this effort's likely cumulative impacts on the NPR-A. ASTAR's road impacts should be quantified in the EIS. BLM has failed to adequately do so in the DEIS.	Quantitative information is considered in the analysis, where available; otherwise a qualitative analysis is provided. The ASTAR program does not have any specific projects identified. All existing and planned developments (defined as developments that are currently in the NEPA process, have received funding, or for which there is an existing proposal) are considered in the cumulative effects analysis. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	95	Cumulative Impacts	BLM must make clear that the cumulative impact analysis considers all existing and reasonably foreseeable development, including the following existing sources: winter exploration covering all leased tracts and within the Bear Tooth Unit, Greater Mooses Tooth, Kupamk, Putu, and Horseshoe areas. BLM should also include emissions from future actions such as future expansion of the Willow project and additional westward expansion into the NPR-A, construction and operation of the Libel1y project in the nearshore Beaufort Sea, the Nanushuk project, the proposed Alaska LNG Gas Treatment Facility and associated compressor stations on the North Slope, and future development in the Arctic Refuge Coastal Plain.	All existing and planned developments (defined as developments that are currently in the NEPA process, have received funding, or for which there is an existing proposal) are considered in the cumulative effects analysis. A list of the specific projects considered in the cumulative effects analysis can be found in Appendix F.

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Donahey	Leah	Alaska Wilderness League	29320	120	Cumulative Impacts	BLM's cumulative impacts analysis is woefully lacking. First, BLM simply references the 2012 analysis, without including any summary. BLM must add a summary of that information to this document. BLM also summarily states the technological advances would mitigate impacts, without any actual description of the supposed technological advances or analysis of the impacts. (BLM sates that use of ice roads and pads are technological advances but both have been in use for decades.) BLM similarly states that climate change could influence the rate of the impacts, without any actual analysis. It is well accepted that the hydrologic regime is changing considerable on the North Slope in terms of precipitation, freeze-up, permafrost melting, and infiltration, so name only a few. Instead of merely saying that climate change "could" influence the rate and degree of cumulative impacts, BLM must provide an actual analysis of how it will cause impacts.	The cumulative impacts analysis sections have been revised to include summaries of the 2012 analysis, where needed. The construction practices and equipment used to create the ice roads and pads have advanced, and therefore, are considered technological advancements. Similarly, continued improvements to wellbore surveying, software, and equipment permit companies to drill more wells from a pad and minimize surface footprints are therefore considered technological advancements, clarified in Section 3.2.1 Cumulative Impacts. Section 3.2.1 includes an analysis performed by the University of Alaska Fairbanks and GCM-PWRF on projected increases in precipitation, temperature, sea ice, bedfast lake ice, permafrost (depth of active layer), and thermokarsting. Some projections are stated as rates and the others can be inferred, given the projected percentage increases through 2090.

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Donahey	Leah	Alaska Wilderness League	29320	152	Cumulative Impacts	Nor does the cumulative impacts section grapple with the exacerbating effects of climate change other than a single sentence stating, "The effects of climate change described under Affected Environment above, could influence the rate or degree of the potential cumulative impacts."840 This completely misses the many and intertwining cumulative impacts that will stem from climate change, including exacerbated habitat loss, changes in phenology, invasive species, and changes to hydrology, erosion rates, and other physiological aspects of Arctic ecosystems. An EIS must specifically analyze how climate effects exacerbate or modify other direct impacts. The cumulative impacts analysis is wholly inadequate and must be remedied in the final EIS. -------- 840 1 DEIS at 3-152.	A general description of potential climate change effects on the project area is all that is possible, based on current scientific understanding. Climate prediction and their effects on the natural resources and potential human infrastructure, due to the proposed action, cannot be quantitatively assessed. The Final IAP/EIS was updated to include that climate change will be additive and synergistic, with the effects of leasing and development and examples of predicted climate change effects on example species.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	165	Cumulative Impacts	DEIS claims in its cumulative analysis of impacts from potential NPR-A development and the Ambler mining road, that is currently undergoing review, that additive impacts from NPR-A leasing would likely be minimal because the Ambler road primarily affects the WAH.915 This conclusion appears to be based on the assumption that NPR-A development impacts to the WAH will be minimal. In light of the concerns raised above, this assumption may not be valid. BLM must more thoroughly analyze cumulative effects to fully account for both the potential impacts of the proposed Ambler road, associated mines in the Ambler Mining District and southeastern NPR-A development on the WAH. Other development in the herd range, such as potential Red Dog Mine expansion at the Anarraaq-Aktigiruq exploration site to the west of the NPR-A916 and the proposed road between the Delong Mountain Transportation System and community of Noatak currently being considered through the Noatak Planning and Environmental Linkage study,917 should also be included in this analysis. --------- 915 1 DEIS at 3-177. 916 Alaska Dep't of Nat. Res., Anarraq-Aktigiruq Project, http://dnr.alaska.gov/mlw/mining/largemine/anarraaq-aktigiruq/(last visited Dec. 18, 2019). 917 Alaska Dep't of Transp. & Pub. Facilities, Noatak Planning and Environmental Linkage Study, http://noatakpel.org/index.html (last visited Dec. 18, 2019).	The Final IAP/EIS was updated to the cumulative effects section with the discussion of these projects.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	151	Cumulative Impacts	The cumulative impacts analysis for birds is overall a statement of individual impacts, without an analysis of conclusions of how those impacts could interact, add together, or become synergistically related. This analysis also does not reflect the Reasonably Foreseeable Development Scenario836 or the Reasonably Foreseeable Future Actions,837 which go into greater detail on the development that could occur in the future, the elements of which should be incorporated into the cumulative effects analysis. Nor does the cumulative impacts section analyze what these interacting forces could mean for specific bird species. For example, the DEIS notes that water withdrawals could result in loss of nesting lakes and "could have potential local population consequences for Pacific, red-throated, and yellow-billed loons."838 Later, the DEIS states, "direct and indirect impacts of habitat loss and alteration from gravel placement are not expected to affect population sizes of any bird species."839 But the cumulative impacts section does not analyze how and whether these two impacts may add up to a greater impacts for Yellow-billed Loons specifically. This same issue is reflected throughout the short cumulative impacts section. -------- 836 2 DEIS app'x B. 837 See 2 DEIS app'x F, map F-1. 838 1 DEIS at 3-136. 839 1 DEIS at 3-137.	The IAP/EIS contains a robust analysis of impacts on birds. At the programmatic level, the BLM cannot speculate on the number of birds that would be killed or displaced under each alternative. The cumulative effects section does acknowledge that adverse effects from development will increase cumulatively and will be exacerbated by the effects of climate change. However, individual species are analyzed in the Environmental Consequences section. The wording "…local population consequences" was meant to refer to loons on isolated lakes and ponds that might be drawn down. The wording was modified to be more accurate.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	195	Cumulative Impacts	BLM must include a thorough analysis of the effects of ocean acidification and the cumulative impacts of allowing for increased oil and gas development in the NPR-A.	As described in Appendix F, Section F.4.1, greenhouse gas emissions reported, in metric tons, are used as an indicator for climate impacts. Thus, the more greenhouse gases that are emitted the greater the impact on climate for a given alternative. The scope of the analysis for this IAP/EIS is to disclose the direct and indirect impacts of the range of alternatives and their cumulative contribution to impacts on the evaluated resources. The effects of global climate change on resources in the Arctic are considered and disclosed in the affected environment sections.
Donahey	Leah	Alaska Wilderness League	29320	262	Cumulative Impacts	Overall, the DIA demonstrates that the impact statistics reported by BLM in the DEIS in terms of acres of ground disturbance, miles of roads expected, and area within 4 km of the limited development components modeled underestimate the true expected effects, often severely. There are many reasons why surface disturbance and indirect effects are likely to be even greater than those we report here. For all these reasons it is critical that BLM reassess the expected levels of disturbance and impacts to species and employs quantitative techniques, such as those reported here, to better reflect the effects of altering the IAP in the NPR-A.	The results of the DIA modeling effort are still preliminary and have not been peer reviewed as of the time of the publication of the draft IAP/EIS. The RFD scenario used to estimate oil and gas infrastructure built under each alternative was based on the best available information.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	113	Cumulative Impacts	BLM also failed to analyze the foreseeable impacts of gravel mining occurring close to the Reserve in support of development in the Reserve. For example, the ASRC mine site in the Colville has been and continues to be used for a number of ConocoPhillips' development projects, even though it is just outside the Reserve, and the size of the gravel mine has increased considerably to provide the gravel needed for these projects. The blasting at that project has caused severe distress for community members in Nuiqsut. These impacts will cumulatively combine with the impacts from additional mines currently being proposed by ConocoPhillips for the Willow project. This has not been adequately considered in the DEIS.	The IAP/EIS includes analysis from gravel mining outside of the Reserve.

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Hugo	Charles Sollie	Anaktuvuk Pass	29330	1	Cumulative Impacts	It's the Red River or the Kuukpik. You still have military waste still there from the late '40s and the '50s. It's like tonnage. We're not talking a can there or a can over there. We're talking tons, probably a thousand tons or more buried underneath right next to that Coleville River where it bends heading towards the ocean. That really needs to be cleaned up. It's -- irregardless of who put it there, you're still federal people. They're still under a federal program, federal administration. BLM, the military, they're all under the federal umbrella. And you're the one that comes here to tell us about what BLM intends to do inside the NPR-A and how well you're going to protect that and your intentions of how well it will be developed without harming any ecosystem, but then just right across the river you have tonnage -- tons of garbage, tons of battery acids, tons of metal that's deteriorating, rusting inside the river systems, probably below the surface. That's a lot of tonnage that the military left. And they've not -- have not, so far that we have heard of, cleaned that up. In fact, I'm pretty sure that they wish to put that back underneath the ground instead of cleaning it all up.	The Legacy Wells program is implemented via the Legacy Wells Strategic Plan, which can be found on the BLM website: https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/alaska-legacy-wells. The Legacy Wells Strategic Plan lists all the remaining wells requiring BLM action and prioritizes them. Cleanup of other formerly used defense sites is managed by the U.S. Army Corps of Engineers.

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Hugo	Francis	Anaktuvuk Pass	29328	2	Cumulative Impacts	In the back of the document it says that impact to Anaktuvuk Pass is a cumulative impact and is only for protect. How did you guys come up with that percentage number? Because that's totally and utterly wrong considering what Esther said. We have no caribou whatsoever. Yesterday or two days ago is the first day my uncle caught a caribou for my grandparents. Over 80-plus years and they haven't gone a fall without a caribou. And here we are in January. No caribou whatsoever all fall, and here we are in January. He got his first caribou two days ago. There's more cumulative impact on AKP than what that statement says. That's enough for a re-evaluation of what's going on that's affecting this community. It's not just the caribou. It's the fish. When there's no caribou, we rely on the fish. What's development doing around the Coleville River area that's seeping into our waters, that's ultimately going into our bodies and my grandparents' bodies? Where is the information about that in that big document there, the impact plan? There's none. I've been looking over that document front to back all day long, and I am totally and utterly disappointed in how it doesn't even address our community. It says four percent impact on our community, yet we're the ones starving. We're the ones that get the least amount of money to help our community from the impact.	The overlap of subsistence use areas with areas available for leasing and development (4% overlap) is only one part of the analysis of impacts on subsistence users in Anaktuvuk Pass and primarily addresses the potential for direct impacts. The 4% use area overlap does not represent a 4% impact. The potential for indirect impacts on Anaktuvuk Pass caribou harvesting, including the particular vulnerability of Anaktuvuk Pass to changes in the availability of caribou, is discussed in Section 3.4.3, Subsistence Uses and Resources. A consideration of how activity in the NPR-A may affect the migration and health of subsistence resources is also included in the subsistence analysis.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Purtle	Joshua	California Office of the Attorney General	27340	2	Cumulative Impacts	BLM fails to fully analyze the cumulative impacts of expanded leasing in the Reserve with proposed leasing on the Coastal Plain of the Arctic National Wildlife Refuge. This omission is puzzling, because the Arctic Refuge leasing program threatens impacts to similar habitat and many of the same species affected by the Draft Plan.	The IAP/EIS cumulative analysis does include impacts from the Coastal Plain EIS.
Purtle	Joshua	California Office of the Attorney General	27340	9	Cumulative Impacts	The Draft EIS further fails to fully disclose cumulative migratory bird impacts. An environmental impact statement must disclose all of the environmental impacts of an agency proposal, including cumulative impacts. See Diné Citizens Against Ruining Our Env't, 923 F.3d at 851. Cumulative impacts are “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency … or person undertakes such other actions.” 40 C.F.R. § 1508.7; Klamath-Siskiyou Wildlands Ctr. v. BLM, 387 F.3d 989, 995-97 (9th Cir. 2004) (holding environmental assessment unlawful where it failed to fully address the cumulative impacts of a timber sale with other timber sales and roadbuilding projects). As discussed, BLM has proposed to conduct a leasing program in the Arctic National Wildlife Refuge's Coastal Plain. BLM has already issued a Final EIS for this proposed leasing, and a Record of Decision authorizing lease sales is expected in the near future. Leasing in the Refuge Coastal Plain would cause additional migratory bird impacts that will be	The BLM cannot speculate on the number of birds affected or even the magnitude of impacts that would result from cumulative impacts from past, present, and reasonably foreseeable future actions. The Final IAP/EIS has been updated to further qualitatively describe future actions and how those would incrementally impact the bird species on the NPR-A.

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(see above)	*(see above)*	*(see above)*	*(see above)*	9 *(cont.)*	*(see above)*	cumulative with impacts caused by leasing in the nearby National Petroleum Reserve. See Arctic Refuge EIS at 3-118 through 3-136. The proposed Refuge leasing would also allow 174 or more miles of gravel road construction, extensive and harmful ice road construction, 212 or more miles of oil and gas pipeline construction, nearly 300 acres of gravel pits and stockpiles, and seismic activity across much of the Refuge Coastal Plain. Arctic Refuge EIS at ES-5 through ES-6. All of this additional development will harm migratory birds and other wildlife and degrade their habitat. Despite BLM's expected decision to authorize leasing in the Arctic National Wildlife Refuge in the near future, the Draft EIS for the Reserve fails to rationally evaluate the cumulative impacts of such leasing on migratory birds. In particular, the Draft EIS's discussion of such cumulative impacts does not even mention the proposed Refuge leasing program. 2019 Draft EIS at 3-151 through 3-152 (migratory birds). The Draft EIS thus fails to comply with NEPA's requirement to consider and disclose all the cumulative impacts of BLM's proposed leasing expansion. See 40 C.F.R. § 1508.7 (agency must consider cumulative impacts of "past, present, and reasonably foreseeable future actions"); Klamath-Siskiyou Wildlands Ctr., 387 F.3d at 997. BLM must address this legal defect before it may finalize its Draft Plan.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Maupin	Siqiniq	Fairbanks	27316	3	Cumulative Impacts	We are also seeing sick animals on our land. We have so many projects stacked on top of each other, and no cumulative study for the long-term effects of having GM 1, GM 2. We have the Master Willow project that they want to propose. We have so many projects. We are seeing that our caribou are having black bone marrow found with them, signs of starvation. We have mold on our fish in the river that is proposed to be taken out of protection. We are already having life-threatening effects in these areas that are protected, that sustain the people of the Arctic Slope.	The BLM is considering a leasing deferral area around the City of Nuiqsut to mitigate impacts on resources, including subsistence.
Adams	Jim	National Parks Conservation Association	29262	11	Cumulative Impacts	BLM must more thoroughly analyze cumulative effects to fully account for both the potential impacts of the proposed Ambler industrial mining road, associated mines in the Ambler Mining District and southeastern NPR-A development on the WACH. Other development in the herd range, such as potential Red Dog Mine expansion at the Anarraaq-Aktigiruq exploration site to the west of the NPR-A and the proposed road between the DeLong Mountain Transportation System and community of Noatak currently being considered through the Noatak Planning and Environmental Linkage study, should also be included in this analysis. 57.Alaska Dep't of Nat. Res., Anarraq-Aktigiruq Project, http://dnr.alaska.gov/mlw/mining/largemine/anarraaq-aktigiruq/(last visited Dec. 18, 2019). 58.Alaska Dep't of Transp. & Pub. Facilities, Noatak Planning and Environmental Linkage Study, http://noatakpel.org/index.html (last visited Dec. 18, 2019).	The Final IAP/EIS cumulative effects section has been updated with the discussion of these projects.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	1	Cumulative Impacts	our community is already surrounded by exploration and development projects and the true impacts of these activities are not yet fully understood. We are opposed to all new exploration and development near our community until the impacts from existing development are adequately understood, and health and safety, economic security, and the traditional way of life in our community is ensured.1 We therefore urge BLM not to finalize any revision of the IAP until BLM appropriately engages with and considers input from NVN, adequately understands and analyzes the impacts of existing development, and considers alternatives that would significantly reduce harmful impacts to our community. 1 See Resolution to oppose proposed exploration and development near Nuiqsut, including ConocoPhillips' 2019-20 winter exploration program, the Willow Master Development Plan, the Nanushuk Project, and the North Slope Borough's rezoning of the Nanushuk project area from conservation district to development district, Native Village of Nuiqsut Resolution 2019-07 (Oct. 25, 2019).	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative to require existing lessees to undertake phased development. Once a lease is sold, the BLM must process permits for development as they are received.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hartsig	Andrew	Ocean Conservancy	29278	2	Cumulative Impacts	BLM should include the potential Willow project in its development scenario. It is inappropriate for BLM to exclude Willow from consideration in the draft IAP/EIS's hypothetical development scenario. The Willow project has not been approved or finalized and is still in flux. In fact, BLM recently committed to releasing a supplemental EIS for that project to consider new components that have not been assessed or subjected to public review.3 Because BLM is considering changes to the IAP that would allow leasing in and adjacent to the Teshekpuk Lake Special Area, BLM must analyze how those changes could combine with impacts from the future Willow project, together with other planned and existing development. In short, BLM needs to consider the Willow project as part of the draft IAP/EIS's hypothetical development scenario. 3 See, e.g., BLM eplanning webpage for docket #DOI-BLM-AK-0000-2018-0004-EIS for Willow Master Development Plan, available at https://eplanning.blm.gov/epl-frontoffice/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=161456 (noting that BLM is "preparing a supplemental draft EIS for the Willow Master Development Plan," because "new project components have not been previously analyzed or shared with the public.")	The proposed Willow development was included in the cumulative effects analysis for the Draft IAP/EIS. The cumulative effects analysis for the Final IAP/EIS includes an updated project description for the Willow development. The analysis of how the impacts of Willow will interact with the impacts of each alternative being considered in the IAP/EIS was based on the best available information at the time of drafting the Final IAP/EIS. The hypothetical development scenario only includes projects that are not currently in the NEPA process, have not received funding, or for which there is not an existing proposal.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hartsig	Andrew	Ocean Conservancy	29278	4	Cumulative Impacts	More broadly, BLM must improve its cumulative impacts analysis. At present, the draft IAP/EIS's cumulative impacts analysis includes many generalities about impacts and effects. It lacks substantive, quantified and detailed information. To meet its obligations under NEPA, BLM must revise the draft IAP/EIS to better identify, analyze and more fully consider the cumulative effects of leasing-including all subsequent phases of oil and gas activities-as well as all other reasonably foreseeable future actions.	At this programmatic scale, quantitative analysis is not appropriate. It is unknown where development might occur and at what levels. This analysis can only disclose potential impacts. Site-specific analysis lends itself to quantitatively forecast.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Little	Suzanne	The Pew Charitable Trusts	26136	6	Cumulative Impacts	Greater Mooses Tooth 1 (GMT1) and Greater Mooses Tooth 2 (GMT2) are coming into production, and the extent of impacts on the region from this development is not fully known. In GMT1, BLM determined a single drill pad would significantly impact Nuiqsut's subsistence uses. Development has only expanded since that finding in 2014 but without a thorough accounting for cumulative impacts. ConocoPhillips is also moving forward with the Willow project, which could include a new central processing facility with up to five drill pads, fifty wells on each pad, an extensive road system, an airstrip, pipelines and a gravel mine. During the draft Willow Master Development Plan comment period significant questions were raised by North Slope residents regarding impacts that could profoundly affect subsistence, human health, and other values. BLM's recent decision to prepare a supplemental draft EIS for the Willow Master Development Plan is a positive step and illustrates the need to extend the comment period on the Draft IAP to provide adequate opportunity for public engagement. Cumulative Impacts from these significant projects must be better vetted, analyzed and addressed in the final IAP.	The comment period was extended by 15 days. The cumulative impact analysis for the Final IAP/EIS was updated with the best available information on current and planned developments.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	4	Cumulative Impacts	We are concerned about the speed with which decisions are being made about land use and development within the NPR-A. As we pointed out in our scoping comments, the current IAP has only been in effect for six years, with oil production not starting until 2015. There still is a lack of analysis and understanding of the effects of existing infrastructure under the current plan (e.g., CD5, GMT1 and GMT2). There is also insufficient analysis of the extensive effects that will be created and facilitated by the proposed Willow project, which has yet to complete permitting and receives insufficient attention and analysis in the draft IAP/EIS. Thus, we believe it is irresponsible to consider reducing protections and opening new areas to development, as happens under all action alternatives in the draft IAP/EIS.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.”
Gaedeke	John	–	29240	1	Cumulative Impacts	Nowhere in this draft EIS is there a mention of the Ambler Road Proposal as a detrimental cumulative affect.	The IAP/EIS includes analysis of the proposed Ambler Road. See Appendix F, Table F-1.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Reichardt	Paul	–	27861	4	Cumulative Impacts	Third, this draft IAP/EIS left me in the dark about the possible cumulative effects of each of the proposed Alternatives and the ongoing developments associated with GMT-1, GMT-2 and Willow projects. GMT-1 and GMT-1 are just getting underway, and there doesn't appear to be good information on the actual environmental impacts of those projects. The Willow project's Master Development Plan and EIS are still in draft form (With the comment period only recently ended). So, there is a lot of development underway in NPR-A; and we know little about its effects on these areas with “significant subsistence, recreational, fish and wildlife, historic, or scenic values: (Naval Reserves Production Act of 1976). Is this really the time to consider allowing additional development that poses “Unavoidable Adverse Effects” (Vol 1, p.3-329) in an area that is already probably environmentally stressed?	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schoen	John	–	26974	1	Cumulative Impacts	The NRC described that the cumulative effects of oil infrastructure are not limited to the gravel footprint. The NRC determined that extent of development on the North Slope has affected 1,000 square miles but the gravel footprint only covers 10,000 acres. This issue needs to be explicitly addressed in the FEIS. For example, scientists have determined that caribou (particularly large groups of cows and calves) are displaced by pipelines in combination with roads in the Prudhoe Bay development area. Thus, the area of impact is far greater than the immediate infrastructure. The action alternatives in the DEIS all will have significant cumulative effects on this region's ecosystem including caribou, waterbirds, marine mammals, subsistence harvest opportunities, etc. The DEIS fails to fully evaluate the cumulative effects of expanded oil and gas development within the NPRA under the action alternatives of the new IAP.	The IAP/EIS does not state the impacts are limited to the gravel footprint of development. The analysis includes indirect impacts from gravel mining. In the cumulative effects analysis, the BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schoen	John	–	26974	2	Cumulative Impacts	I recommend that a detailed analysis of the action alternatives (B, C, and D) be undertaken so as to accurately assess and predict cumulative effects of development activities and infrastructure on wildlife (including birds, mammals and fish), vegetation communities, hydrology, and other ecosystem processes. The actual impacts of development infrastructure and activities will significantly exceed the direct gravel footprint of infrastructure. The indirect influence of pads, airstrips, roads, pipelines, and aircraft and vehicular traffic have significant impacts on animal behavior, displacement, and stress. These stressors must be accounted for and a robust program of research and monitoring should be established so as to develop an adaptive management strategy to reduce impacts to the important natural resources of the NPRA and particularly the ecosystems within the designated special areas.	The IAP/EIS does not state the impacts are limited to the gravel footprint of development. The analysis includes indirect impacts from gravel mining. The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate. NEPA does not require an agency to fill data gaps before making a decision.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schoen	John	_	26974	3	Cumulative Impacts	I recommend that a comprehensive and detailed analysis of the cumulative effects of oil gas exploration and development on the WAH and Teshekpuk Caribou Herd be conducted for each of the action alternatives in the new IAP and peer-reviewed by an independent scientific body. The analysis done in the DEIS is inadequate. A more rigorous analysis such as that done by Wilson et al. 2013) should be performed to assess impacts to caribou and other wildlife species of concern. It will also be important to conduct a vigorous evaluation the potential effects on the subsistence users of both the WAH and Teshekpuk Caribou Herd.	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate. NEPA does not require an agency to fill data gaps before making a decision.
Schoen	John	_	26974	4	Cumulative Impacts	It will be necessary to assess the potential impacts of oil-field development on polar bears using coastal areas within the NPRA and also analyze those impacts in terms of climate change and the likelihood of increasing use of the coastal plain for denning by polar bears. A comprehensive cumulative effects analysis of each of the action alternatives should be conducted and peer reviewed.	In the cumulative effects analysis, the BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate.
Schoen	John	_	26974	6	Cumulative Impacts	The 2003 NRC report on cumulative effects of oil and gas activities on Alaska' North Slope states that: "To date, decisions have generally been made without a comprehensive slope-wide plan and regulatory strategy that identify the scope, intensity, direction and consequences of industrial activities judged acceptable." This is a major concern. Over 95 percent of the Arctic coastal plain in Alaska is not permanently protected and remains	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate. NEPA does not require an agency to fill data gaps before making a decision.

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						available for development. The NPRA encompasses some of the best wildlife habitats in America's Arctic. The 2013 IAP for NPRA used the best available science to craft a plan that provided a reasonable balance between resource development and ecosystem conservation. The action alternatives in the proposed IAP significantly jeopardize that balance and increase the risks of conserving our nation's most valuable Arctic wildlife populations and their habitats. Before a new IAP is adopted for the NPRA, I strongly urge the BLM to follow the 2003 NRC recommendations for filling the following knowledge gaps. Those recommendations include: * Ecosystem-level research in addition to local ecological studies. * Studies to understand the types of effects that exist at varying distances beyond the footprint of industrial structures. * Studies of air pollutions that provide a quantitative baseline of spatial and temporal trends in air quality over long periods across the North Slope. * Studies of effect of seismic exploration and other off-road use on the tundra. * Research on habitat requirements of caribou, their reproductive physiology and movements, and how natural and anthropogenic disturbance affects them.	

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Senner	Stanley	–	27093	1	Cumulative Impacts	p. ES-5 Hypothetical Development Scenarios DEIS: "Existing developments and those in the permitting process, such as the Willow development, are not included in the development or production projections below." Comment: Particularly with the recent announcement of a supplemental EIS for the Willow development, it is essential that information about the Willow development, including its infrastructure, footprint and impacts, is fully incorporated into the IAP DEIS. You now need a supplemental EIS for the IAP; anything less will be woefully inadequate.	All existing and planned developments (defined as developments that are currently in the NEPA process, have received funding, or for which there is an existing proposal) are considered in the cumulative effects analysis. The hypothetical development scenario includes development in areas for which there are no existing proposals but where development is likely.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Strailey	Kaarle	–	29135	5	Cumulative Impacts	BLM has not fully considered the cumulative impacts of further development in the Western Arctic, or how to address those impacts. GMT1 and GMT2 have just been completed, and more studies are needed before BLM and other permitting agencies can understand the extent the impacts of development are having on this area. ConocoPhillips is also moving forward with the massive new Willow project, which would include a new central processing facility within the NPR-A, up to five drill pads with up to fifty wells on each pad, an extensive road system, an airstrip, pipelines, a gravel mine, and, potentially, a temporary gravel island in Harrison Bay. In GMT1, BLM determined a single drill pad would significantly impact Nuiqsut's subsistence uses. Development has only expanded since that finding in 2014. ConocoPhillips continues to push west in the NPR-A at a time when the Administration is considering opening new areas of the Arctic to oil and gas, making it difficult for the public to determine how these processes are working in tandem. BLM recently completed the comment period on the draft Master Development Plan and EIS for the Willow Project. Significant questions were raised regarding impacts that could profoundly affect subsistence, human health, and other values in the Teshekpuk Lake Special Area. Impacts from this massive project must be fully vetted and addressed before revising the management plan for the NPR-A.	The proposed Willow development was included in the cumulative effects analysis for the Draft IAP/EIS. The cumulative effects analysis for the Final IAP/EIS includes an updated project description for the Willow development. The analysis of how the impacts of Willow will interact with the impacts of each alternative being considered in the IAP/EIS was based on the best available information at the time of drafting the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wood	Ruth	_	27357	10	Cumulative Impacts	The comparison of Alternatives and the Cumulative Impact Analysis is woefully inadequate. It seems that there is a lot of Alternative D has more negative impacts than Alternative C, which has more negative impacts than Alternative B, which has more or different negative impacts (depending on your perspective) than Alternative A. That doesn't analyze the differences and that analysis is needed. Similarly, the cumulative impact analysis appears to say merely that there will be cumulative impact without analyzing what it will be and how impactful it will be. For example, the draft speaks of a recent ice road and how water levels returned to normal, but there is no discussion of what will happen to the water when there is similar construction every year.	The IAP/EIS compares the differences in impacts by alternative. Unlike specific development projects, where the location, timing, and scope of activities are understood, at this leasing stage, such information is absent. Given the absence of this information at the leasing stage, such detailed analysis would not be helpful to a decision-maker.
Wood	Ruth	_	27357	11	Cumulative Impacts	In another paragraph addressing cumulative impacts regarding water resources, the draft says, “Advances in technology, such as the use of rolligons, ice roads, snow trails, and ice pads, would mitigate damage to the tundra and floodplains. The use of a single pad and horizontal drilling to drill multiple well bores would reduce disturbance to floodplains and is a more efficient use of water for drilling fluids and reinjection.” But that is supposition, not science. Who is to say that technology will advance sufficiently to mitigate damage to tundra and floodplains, etc. A range of cumulative impacts should be considered for each alternative, and provisions made to address cumulative impacts that are unacceptable.	The assumption that permittees will use the best available technology is not supposition. The impact analysis is based on reasonable assumptions about the current state of oil and gas extraction.

Z.3.13 Direct/Indirect Impacts

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Bruno	Jeff	State of Alaska	29317	91	Direct/ Indirect Impacts	Page #: B-7 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph three on this page notes that the proposed gravel island from the Willow Project at Atigaru Point could be re-used. Based on stakeholder input, the November 2019 version of the EIS appears to be exploring other options and has issued another alternative that proposes use of the Oliktok Dock and a crossing of the Colville River at Ocean Point. Suggestion if applicable: Please discuss this comparison with the writers of the Willow development EIS to make sure this information is still applicable.	Descriptions of the Willow project have been updated in the Final IAP/EIS. Assumptions regarding potential barge landing locations have been re-examined and included, as appropriate, in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	31	Direct/ Indirect Impacts	While the impacts analysis occasionally references a stipulation or ROP, it does so only in cursory fashion that in no way constitutes the required analysis of their effectiveness. For example, BLM's marine mammal analysis mentions various BMPs and ROPs: "Effective control of potentially toxic substances and careful attention to preventing spills of any size are key to preventing such injuries (BMP A-3, BMP and ROP A-4, A-5)."178 But there is no meaningful analysis of how these stipulations and ROPs would be effective, or how the ROPs would reduce adverse impacts to marine mammals. Similarly vague statements appear throughout the draft EIS, such as the statement in BLM's subsistence analysis that "ROPs E-1, E-4, E-5, E-7, and E- 24 would help minimize potential direct obstructions to subsistence uses from infrastructure; however, impacts to access may still occur due to some harvesters avoiding industry."179 The impacts analysis mentions list of potential mitigation measures without even referring back to a specific stipulation or ROP and analyzing each one, leaving the reader guessing if and how such a measure might be implemented. The draft EIS utterly fails to analyze the effectiveness of its proposed mitigation measures. ----------- 178 DEIS vol. 1 at 3-203. 179 DEIS vol. 1 at 3-239.	The analysis in Chapter 3 has been revised to better address the effectiveness of the stipulations and ROPs.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	21	Direct/ Indirect Impacts	The draft EIS does not discuss what this reduction in the refueling setback would mean in terms of potentially increased impacts to fish, wildlife, and the environment. Where there are differences in BMPs/ROPs between Alternative A and the action alternatives, the EIS must discuss how these changes will alter impacts.	Due to the topography of the NPR-A it is not possible to require refueling to be at least 500' from a waterbody. The BLM has had to issue a waiver to this requirement for every permanent development in the NPR-A, thus the impacts under Alternative A are substantially the same as the impacts under the action alternatives. This ROP was adjusted to make it achievable.
Donahey	Leah	Alaska Wilderness League	29320	11	Direct/ Indirect Impacts	BLM's use of tiering and incorporation of documents by reference is improper and deprives the public of the ability to fully understand and comment on BLM's analysis and the potential impacts of revising the IAP. Additionally, because BLM has not considered the full scope of impacts in the draft EIS, such as cumulative impacts from future development, meaningful mitigation measures, and meaningful analysis of differing impacts among alternatives, the public cannot review or comment on these issues.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference.
Donahey	Leah	Alaska Wilderness League	29320	71	Direct/ Indirect Impacts	BLM should perform modeling to more accurately estimate the potential development footprint and impacts. It is possible to do this modeling. Wilson et al.403 developed a modeling approach that specifically accounts for uncertainty when comparing between alternative proposals. They applied their model to the 2013 NPR-A IAP to evaluate potential impacts from future development to the Teshekpuk Caribou Herd and nesting passerine birds under the four alternatives considered in that IAP EIS process. The approach also provides quantitative estimates of the amount	The results of this modeling effort are still preliminary and have not been peer reviewed as of the time of the publication of the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	71 *(cont.)*	*(see above)*	of development generated under each alternative. The DEIS for the revised IAP failed to include a similar quantitative analysis using the approach of Wilson et al. or another comparable method. We conducted an updated analysis based on the approach of Wilson et al. In these comments, we refer to our expanded approach as the Development Impacts Analysis (DIA). The DIA took into account updated oil availability since the 2013 IAP and updated development assumptions to align with the DEIS and other recent proposals. Results are being written up for publication in a peer-reviewed scientific journal. We include here a summary of the estimated development footprint and compare results to estimates given in the DEIS. Those results indicate that BLM underestimated the potential development footprint in its impacts analysis. -------- 403 Wilson, R.R., Liebezeit, J.R., Loya, W.M. 2013. Accounting for uncertainty in oil and gas development impacts to wildlife in Alaska. Conservation Letters 6, 350-358.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	74	Direct/ Indirect Impacts	[comment:29320-74; 103.09]Extensive areas of the NPR-A are already open to development and serious direct, indirect, and cumulative impacts are already occurring in the Reserve, particularly around Nuiqsut. Despite this, BLM's development scenario and impacts analysis fails to take a robust or up-to-date look at the full range of development and impacts that are occurring and will occur in the future, particularly in light of these discoveries and developments.[comment end]	The IAP/EIS takes into account recent discoveries and potential future developments.
Donahey	Leah	Alaska Wilderness League	29320	211	Direct/ Indirect Impacts	BLM must carefully consider the impacts of the Willow Plan in the context of the Reserve's IAP. It is concerning that the draft EIS ignores Willow for purposes of its hypothetical development scenario.58 It is inappropriate for BLM to exclude Willow from consideration in the development scenario when BLM has yet to approve that project and that project was neither known about nor analyzed as part of the 2012 IAP development scenario. BLM needs to consider Willow as part of the development scenario.	The proposed Willow development was included in the cumulative effects analysis for the Draft IAP/EIS. The cumulative effects analysis for the Final IAP/EIS includes an updated project description for the Willow development. The analysis of how the impacts of Willow interacted with the impacts of each alternative considered in the IAP/EIS was based on the best available information at the time of drafting the Final IAP/EIS. The hypothetical development scenario only includes projects that are not currently in the NEPA process, have not received funding, or for which there is not an existing proposal.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	258	Direct/ Indirect Impacts	New Developments may be Larger than Willow. For the purpose of air quality modelling, the DEIS assumes that "near-field impacts from individual future developments in the NPR-A are expected to be comparable to or less than impacts from the Willow project, and the Willow EIS near-field analysis results are used as a surrogate for the near-field analysis for the NPR-A IAP."396 Given that North Slope Exploration leased almost one million acres in December 2019 and that Caelus estimates over 6 billion barrels of oil in Smith Bay, there is no reason to assume that the infrastructure proposed for the Willow project is an adequate "surrogate" for future developments in the NPR-A. Further, BLM underestimated the air quality impacts resulting from Willow, as described below in our comments on BLM's air quality analysis. BLM needs to account for and update these assumptions in its analysis. --------- 396 1 DEIS at 3-11	The BLM used the best information available at the time of the development of the IAP/EIS. For the life of this plan (20 years) development in the NPR-A will be substantially similar to existing and planned developments, such as Alpine and the proposed Willow development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	259	Direct/ Indirect Impacts	The DEIS Underestimates the Likely Footprint of Hypothetical Developments. The IAP DEIS says that "A typical pad for a CPF and associated facilities, which include an airstrip, workers' camp, and production well pad, is approximately 50 acres."399 BLM cites to the 2012 IAP EIS for this assertion. However, the Willow DEIS indicates infrastructure is more likely to be double that acreage. The Willow DEIS lists gravel pad acreages separately for various infrastructure elements, including the central processing facility, operations center, and airstrip.400 Combining those acreage numbers together, it indicates the total area for the CPF and associated facilities is more likely to be between 83 to 136.4 acres - over double what BLM assumes in the RFDS for a typical development. These numbers also do not account for impacts that extend out from the actual footprint of any development. BLM has underestimated the potential footprint and impacts of development in the DEIS. BLM needs to revise these numbers to account for a more realistic development scenario. -------- 399 2 DEIS at B-6. 400 Willow DEIS at 18-19 tbl. 2.8.1.	Descriptions and calculations of the Willow project have been updated in the Final IAP/EIS. Impacts that extend beyond the actual footprint of development are discussed in the environmental consequences sections for the impacted resource(s).
Donahey	Leah	Alaska Wilderness League	29320	110	Direct/ Indirect Impacts	BLM's consideration of the impacts of climate change on gravel resources is inadequate. BLM states with regard to climate change that a "longer or warmer summer season may increase the volume of materials needed to maintain infrastructure."702 BLM's cursory statement fails to fully account for the fact that substantially more gravel	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific project details, such as gravel volume. Specific projects will be analyzed in subsequent NEPA analyses when a project is proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	110 *(cont.)*	*(see above)*	might be necessary because of permafrost concerns, both regard to the initial construction of the infrastructure and with regard to maintenance (e.g. with deeper or thicker pads and roads necessary to prevent permafrost degradation). BLM's analysis also fails to account for the serious impacts that could occur from allowing gravel mining in river beds, which are likely to experience even greater issues with permafrost degradation and erosion. There are a range of serious sedimentation, permafrost degradation, and other issues associated with gravel mining in streams that will be exacerbated by climate change. These issues are not adequately addressed in the DEIS. Instead, BLM includes only a cursory statement that removal of "gravel in the future from areas near or in streams could change stream configurations, hydraulics, flow patterns, erosion, sedimentation, and ice damming."703 This cursory reference to potential changes is insufficient to constitute a hard look at the likely impacts of allowing gravel mining in rivers and streams. BLM should not allow such a destructive activity to occur in rivers and streams. There is also no indication BLM ever considered ways to mitigate against these impacts, as required by NEPA. --------- 703 1 DEIS at 3-60.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.
Culliney	Susan	Anchorage	27910	4	Direct/ Indirect Impacts	What the agency should do first is disentangle this IAP process from the Willow process	The IAP/EIS is not connected to the Willow EIS process.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Ahngasuk	Margaret	Atqasuk Corporation	29287	4	Direct/ Indirect Impacts	As we evaluate how oil and gas leasing is managed in the NPR-A, BLM must consider the unintended impacts their lease stipulations, required operating procedures, and management may affect adjacent Native owned land. AC is concerned that the restrictions placed on neighboring federally managed land may act as a blockade to development of Native owned resources. To avoid this outcome, BLM should commit to co-manage areas that are adjacent to Native-owned land. Further, BLM should clarify that their restrictions, requirements, and stipulations do not apply to Native-owned land, specifically Lease Stipulation K-17.	The BLM has consulted with Alaska Native landowners in developing the preferred alternative. Stipulation K-17 has been updated in the Final IAP/EIS.
Ahngasuk	Margaret	Atqasuk Corporation	29287	2	Direct/ Indirect Impacts	An important aspect that is overlooked in the IAP Draft EIS is the positive local economic impacts from leasing and development in the NPR-A. Although the DEIS correctly describes the benefits the North Slope Borough and State of Alaska stand to gain, the benefits to private land owners, like AC or Native Allotment holders, are not well described. While it is appropriate for BLM not to include Native-owned lands in their stipulations, requirements, and restrictions, the indirect benefits and impacts of BLM's proposed plan should be included in BLM's analysis.	The Final IAP/EIS has been updated to clarify potential indirect economic impacts (indirect benefits) to nearby private landowners.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Ahngasuk	Margaret	Atqasuk Corporation	29287	3	Direct/ Indirect Impacts	Private, Native-owned landowners may experience a multitude of direct and indirect positive impacts from leasing and development in the NPR-A which should be considered by BLM, including the following: . indirect benefit of leasing and development in the NPR-A which could facilitate development on AC lands; . Opportunity for Native Allotment holders to benefit from development, access, and/or use of their inholdings; . The potential for lower cost natural gas; . Capacity building of AC and other Native-owned organizations for support services of industry programs; o Local economic generation as a result of industry's presence in and around Atqasuk; and, . Access to infrastructure.	A discussion was added to the environmental consequences section to qualitatively discuss potential indirect benefits of post-leasing activities, particularly to private, Native landowners with respect to lease rental/royalty payments, increased access given allowable community and infrastructure development stated in the IAP, and an increase in employment and economic opportunities for local residents and businesses in the oilfield services sector. As an example, Kuukpik owns the surface rights to portions of the Alpine oil field and receives a small royalty from the production of oil and gas. As the first Native village to be impacted in this way by the oil industry, Kuukpik Corporation was able to successfully negotiate a comprehensive surface-use agreement. This agreement established provisions for education, training, preferences in contracting, employment, and the environment (Kuukpik Corporation 2019).
Lowenthal	Alan	Congress of the United States	27860	4	Direct/ Indirect Impacts	Developing a new IAP that further prioritizes oil and gas development is unnecessary and ignores the serious impacts additional development will have on the climate, Alaska's indigenous populations, and fish and wildlife populations across this region.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.”

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Navarrette	Rikki	Kuukpik Corporation	29284	61	Direct/ Indirect Impacts	The inadequate depth of analysis means the Draft lacks detailed information on the likely impacts of ALL the alternatives and especially the differences between them. Information that took multiple pages to explain in prior NEPA analyses have been whittled down to a sentence or two, or maybe a table that offers data or labels but no context. That's rarely good enough because context is everything and so many of these issues are inter-related. Impacts in one geographic area means other locations become more important; failure to harvest one subsistence resource must be made up elsewhere. And impacts add up quickly in ways that are not obvious and can't be explained in just a few short sentences.	Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, particularly with regard to the length of its NEPA documents. The BLM has complied with this order, and supporting documentation has been included in the appendices.
Adams	Jim	National Parks Conservation Association	29262	13	Direct/ Indirect Impacts	Climate change impacts are already occurring and must be disclosed and analyzed under NEPA	The effects of climate change are considered a part of the baseline conditions for resources in the IAP/EIS in Chapter 3.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hartsig	Andrew	Ocean Conservancy	29278	3	Direct/ Indirect Impacts	BLM should improve its analysis of potential direct, indirect and cumulative impacts to marine and coastal areas within the Reserve. The draft IAP/EIS acknowledges that exploration, development and production activities undertaken in the Reserve may affect marine and coastal environments, wildlife habitat, and subsistence activities. However, the draft IAP/EIS's analysis of these impacts in Chapter 3 is cursory. BLM should provide deeper and more concrete analysis of coastal and marine impacts, including impacts associated with: -Construction and use of barge landings, -Construction and use of artificial islands, -Construction and use of seawater treatment plants, -Noise associated with additional vessel traffic and noise related to other transit activities, and -Increased risk of oil spills from ships, barges and other watercraft.	The analysis of effects presented in this IAP/EIS is necessarily qualitative because the action proposed is programmatic rather than related to a specific project design. The BLM provided the quantitative analysis of acreages affected, where possible. Concrete analyses of barge landings, artificial islands, seawater treatment plants, or other infrastructure will be addressed in project-specific environmental impact statements for proposed development projects that contain those elements.
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	6	Direct/ Indirect Impacts	* BLM should integrate more performance-based requirements where possible in their (ROPs). A number of requirements included in the 2013 IAP were unduly burdensome to industry and created impacts themselves through increased activity and aircraft in the area. BLM should be thoughtful and balanced in creating this framework of requirements.	ROPs have been updated to be more performance based.

Z.3.14 Economy

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	19	Economy	Page #: 3-312 Table or figure: Paragraph 4 Reviewer Name/Agency: ADNR Comment: "The conservation surcharges apply to all [taxable] oil production in Alaska and are in addition to production taxes." Suggestion if applicable: 100% of oil produced is not taxable, the royalty percentage is not taxable. Revise to specify taxable oil production.	The Final IAP/EIS has been updated accordingly.
Bruno	Jeff	State of Alaska	29317	18	Economy	Page #: 3-312 Table or figure: Paragraph 4 Reviewer Name/Agency: ADNR Comment: "The production tax would apply to [the taxable] oil produced from the NPR-A and is based on the current tax rate of 35 percent of the production [tax] value, which is the value at the point of production, less all qualified lease expenditures (net value)." Suggestion if applicable: 100% of oil produced is not taxable, the royalty percentage is not taxable. Revise to specify "taxable" oil production.	The Final IAP/EIS has been updated accordingly.
Bruno	Jeff	State of Alaska	29317	79	Economy	Page #: 3-313 Table or figure: Reviewer Name/Agency: ADEC Comment: The final paragraph on this page notes that "GMT2 could be construction in early 2019." This sentence needs to be updated. Recent media reports have said the GMT2 facilities are under construction. Suggestion if applicable: Please update this sentence.	The Final IAP/EIS has been updated accordingly.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	244	Economy	The draft EIS is insufficient in how it analyzes local economic impacts for North Slope communities, which will likely bear costs that aren't quantified or event mentioned in the draft EIS. It also fails to adequately analyze the cumulative benefits or impacts offered by each alternative at local, state, and national levels, and it seemingly uses cumulative oil production as a proxy for economic impacts, without explanation for that assumption. Overall, it underestimates and ignores negative economic impacts at the local level, while putting off an analysis of economic impacts from the variety of policy changes - ranging from community infrastructure projects through potential pipeline corridors through the Teshekpuk Lake Special Area - that the action alternatives all envision. Overall, the economic analysis is far too high level, requires additional study, and raises more questions than answers for how each alternative will impact the economy.	Negative local economic impacts with respect to jobs, income, and business opportunity are difficult to project, given that the analysis of post-leasing activities in this IAP/EIS is based on a hypothetical development scenario. Local economic impacts of specific development plans would be analyzed in a subsequent IAP/EIS once an application for new oil and gas activity is submitted to the BLM. Potential negative economic consequences of post-leasing activities as a result of impacts on recreational resources and subsistence resources are discussed in different sections of this IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	158	Economy	Page 3-304 First paragraph after heading Last sentence, "Other communities in the North Slope outside the planning area are also affected by activities in the planning area." The NPR-A Impact Grant program is prioritized for "directly impacted communities." These should remain the primary NPR-A communities on the North Slope.	A discussion of Section 7(i) revenue sharing was added to the environmental consequences section.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Obed	Sarah	Doyon, Limited	27862	3	Economy	In November 2019, Doyon declared a distribution from the Doyon Settlement Trust of $21.9 million dollars to our shareholders. Much of the profit Doyon makes and that supports this distribution is from our oil and gas contracting business. Doyon's shareholders are not the only Alaska Natives that would benefit from additional development in the NPR-A. Subsidiaries of a number of other Alaska Native corporations provide services to the industry on the North Slope. The State as a whole benefits from new development. Each new development results in new jobs for Alaskans, tax revenue for the State, and potential profits for Alaska Native corporations and other companies in the industry. This results in continued services for our shareholders and Alaska citizens. BLM should thoroughly consider these significant economic benefits and other socioeconomic impacts as part of its review and decision-making process. The revised IAP should not unnecessarily foreclose or frustrate resource development in this important resource area.	Potential regional and statewide benefits of post-leasing activities are discussed in Section 3.4.11.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Maupin	Siqiniq	Fairbanks	27316	6	Economy	Will there ever be a time when we stop developing once the impact has become too negative? Is there a stop point? And I want to refer to Nuiqsut, specifically, that there used to be herds that fed the whole community, that went directly to Nuiqsut. Now, you have to go upriver about 10 miles, which costs a significant amount of money for gas. Now, you're having to travel a lot further. And so many of our community members have to go to a store where you buy a pack of processed hamburger patties, about a 12-pack for $30. They don't, typically, have very much fresh fruit. They have a lot of processed foods. And this is a -- maybe a side comment, but many times that we complain about the cancer rates and the health disparities, we're told that it's because of our diets of processed foods. But we're forced to eat these processed foods, directly, because of oil impacts. So is there a place for the Western Arctic where we're going to stop inching and encroaching further on special areas and protections, when the impact of oil is directly why those migration routes changed? So is there an end point or will we continue to keep rewriting this im -- the IAP until there is no other protected areas?	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	28	Economy	The draft EIS's discussion of economics and employment is flawed and misleading. The economics section of the draft EIS focuses on the potential economic benefits to the community, and largely ignores economic harms.53 The draft EIS acknowledges "the economy of Nuiqsut is primarily based on subsistence hunting, fishing, and whaling,"54 but it does not quantify or discuss the potential economic harms given the reality of the subsistence economy in Nuiqsut. BLM must consider the economic impacts that will come from replacing subsistence resources with store bought food, and/or increased costs of practicing subsistence when residents must travel further from home. 53 Draft EIS at 3-307 to 3-314. 54 Id. at 3-305.	Negative local economic impacts with respect to jobs, income, and business opportunity are difficult to project, given that the analysis of post-leasing activities in this IAP/EIS is based on a hypothetical development scenario. Local economic impacts of specific development plans would be analyzed in a subsequent IAP/EIS once an application for new oil and gas activity is submitted to the BLM. Potential negative economic consequences of post-leasing activities as a result of impacts on recreational resources and subsistence resources are discussed in different sections of this IAP/EIS.

Z.3.15 Editorial Comments

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	13	Editorial Comments	Page #: 2-20 Table or figure: Table 2-2 Row 2 Reviewer Name/Agency: ADNR Comment: Use English and metric distance measures 500 meters/1,640 feet. Suggestion if applicable: Inconsistent use of English/metric units please also include English unit for this measure = 1,640 feet.	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	77	Editorial Comments	Page #: 3-12 Table or figure: Table 3-3 Reviewer Name/Agency: ADEC Comment: This table cites to AAQS (ambient air quality standards) rather than either the NAAQS or AAAQS. It is not clear why a new abbreviation is being introduced when the NAAQS and AAAQs are familiar and known. There is no footnote explaining this abbreviation. Suggestion if applicable: Please use NAAQS or AAAQS.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	78	Editorial Comments	Page #: 3-10 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph two on this page discusses the Alaska Department of Environmental Quality twice. This name is incorrect. Suggestion if applicable: Please note that the correct name is the Alaska Department of Environmental Conservation.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	2	Editorial Comments	Page #: vii Table or figure: Acronyms Reviewer Name/Agency: ADNR Comment: Missing: ECI - essential coastal infrastructure; MTI - module transfer island Suggestion if applicable: Please add these acronyms missing from the list.	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	15	Editorial Comments	Page #: 2-31 Table or figure: Table 2-3 Row 2 Reviewer Name/Agency: ADNR Comment: There is a cross reference "(see ROP for essential coastal infrastructure)", but there is no specific ROP number identified. I don't find an ROP that addresses essential coastal infrastructure. Please identify which ROP addresses essential coastal infrastructure. Suggestion if applicable: Add ROP number to cross reference to ROP addressing essential coastal infrastructure.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	92	Editorial Comments	Page #: B-5 Table or figure: 5th paragraph Reviewer Name/Agency: ADNR Comment: Sentence ending "…ENSTAR gas pipeline system in the Matanuska-Susitna Borough and to a tie in pipeline Fairbanks" is missing something. Suggestion if applicable: Fix sentence	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	76	Editorial Comments	Page #: 3-13 Table or figure: Table 3-5 Reviewer Name/Agency: ADEC Comment: This table cites to AAQS (ambient air quality standards) rather than either the NAAQS or AAAQS. It is not clear why a new abbreviation is being introduced when the NAAQS and AAAQs are familiar and known. There is a footnote explaining this abbreviation. Suggestion if applicable: Please use NAAQS or AAAQS.	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	82	Editorial Comments	Page #: 3-76 Table or figure: Reviewer Name/Agency: ADEC Comment: The 3rd paragraph under Legacy Oil and Gas Well Sites and Reserve Pits discusses the ADEC solid waste division. This name is incorrect. Suggestion if applicable: This should read "ADEC Solid Waste Program".	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	74	Editorial Comments	Page #: 3-283 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph one on this page notes that project such as the Alaska LNG and ASAP would increase the presence of well pads, pipelines, roads and other infrastructure. Use of the word "and" appears to imply that both projects could be constructed. Suggestion if applicable: Please replace "and" with "or" in the sentence.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	75	Editorial Comments	Page #: 3-17 Table or figure: Table 3-7 Reviewer Name/Agency: ADEC Comment: This table cites to AAQS (ambient air quality standards) rather than either the NAAQS or AAAQS. It is not clear why a new abbreviation is being introduced when the NAAQS and AAAQs are familiar and known. There is no footnote explaining this abbreviation. Suggestion if applicable: Please use NAAQS or AAAQS	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	137	Editorial Comments	Page 17 Waterbody: A jurisdictional Water of the United States (see 33 CFR 328.4). Examples of waterbodies include streams, rivers, lakes, ponds, and wetlands. BLM should remove the definition of “waterbody” as it does not provide clarity, but rather makes uncertain the applicability of some ROPs. Additionally, the term is written as “waterbody” or “water body” and “waterbodies” inconsistently throughout the IAP/EIS. 43 CFR 328.4 pertains to waters of the U.S. (WOTUS). The term 'water body' and 'fish bearing water body' is used in ROPs and should be clarified. Wetlands should be removed from this definition, as described in a prior comment. ROP A-5 is an example of how this definition would be problematic because a WOTUS waterbody includes wetlands. The entire North Slope may be considered as wetlands. ConocoPhillips recommends using USGS National Hydrographic Dataset definitions for clarity so that appropriate buffers can be applied for project planning and operations in compliance with the ROPs that reference waterbodies.	The definition of waterbody has been added to the glossary.
Schell	John	ConocoPhillips Alaska	29272	63	Editorial Comments	Reference to incorrect Tables BLM should re-check references to tables and figures. References to the wrong table or to non-existing tables occur throughout the document.	The Final IAP/EIS was edited to correct the references to tables and figures.
Schell	John	ConocoPhillips Alaska	29272	138	Editorial Comments	Page 51 Citation error SRB&A 2009 - - the first citation should read SRB&A 2009a - the “a” is missing.	The citation was corrected in IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	139	Editorial Comments	Page 53 SRB&A 2018c SRB&A 2018c -- the Nuiqsut Paisanich was not finalized by the community nor was it prepared for ConocoPhillips Alaska. BLM must remove the reference and/or correct it as prepared for the City of Nuiqsut. However, the report was never finalized so it should not be a cited reference to begin with.	The reference has been updated to reflect the correct contract information. SRB&A completed their contract with the City of Nuiqsut and finalized the document (Nuiqsut Paisaŋich – A 2018 Addendum) under the terms of that contract. The NSB version will not change SRB&A's document, but SRB&A understands that it will include an updated planning portion to accompany SRB&A's document. The new document will be a different document, comprised of the SRB&A 2018 Ethnographic Addendum and NSB's forthcoming management plan. Thus the integrity of SRB&A's 2018 Nuiqsut Paisaŋich will remain and is appropriate to cite.
Schell	John	ConocoPhillips Alaska	29272	157	Editorial Comments	Page 3-207 Paragraph 2 The word "ice" is missing in reference to "diminishing summer sea ICE" Add the word "ice" in the sentence: "Since the publication of that analysis, diminishing summer sea [ICE] has resulted..."	Text has been revised as requested in the Final IAP/EIS.
Fisher	Kevin	North Slope Borough	29290	19	Editorial Comments	Page ES-1 -Purpose and Need * The Borough suggests that BLM clarify the statement of purpose and need in the Draft IAP/EIS. For example, while Secretarial Order 3352 directs the development of a schedule for the review and development of a revised IAP for the NPR-A, the Order does not inform the purpose of the underlying actions that are being considered in the Draft IAP/EIS. The Borough also suggests that BLM incorporate the section on "decisions to be made" to further inform the purpose and need regarding the actions being considered.	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	24	Editorial Comments	Consider adding the following to the acronyms section at the front of the draft report: o AAAQS Alaskan, Ambient Air Quality Standard o CAMx Comprehensive Air Quality Model with E~tensions o CH4 Methane o CO2 Carbon dioxide 0 co Carbon monoxide o HAPS Hazardous air pollutants o Kilometer km o NAAQS EPA National Ambient Air Quality Standard o NO Nitric oxide o NO2 Nitrogen dioxide o NOx Nitrogen oxides o N2O Nitrous oxide 0 03 Ground-level ozone o Pb Lead o PM2_5 Airborne particulate matter with a median aerodynamic diameter equal to, or less than, 2.5 microns. o PM10 Airborne particulate matter with a median aerodynamic diameter equal to, or less than, 10 microns. o SO2 Sulfur dioxide o VOC Volatile organic compounds	The Final IAP/EIS was updated.
Fisher	Kevin	North Slope Borough	29290	20	Editorial Comments	"In 2016, the community of Barrow formally changed its name to Utqiagvik, the traditional Inupiaq name." o Please change this sentence to: "The City of Barrow changed its name to Utqiagvik."	The Final IAP/EIS was updated.
Fisher	Kevin	North Slope Borough	29290	23	Editorial Comments	Page 2-17 -ROP E-12: Use of Ecological Mapping * The Borough suggests that BLM define and further explain what constitutes "ecological mapping."	ROP E-12 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	25	Editorial Comments	Sections 3 .2 .1 and 3 .2 .2 use the definitions 'particulate matter smaller than 2 .5 microns' or 'particulate matter less than 2.5 microns' and 'particulate matter smaller than 10 microns' or 'particulate matter less than 10 microns'. Consider replacing both definitions with 'airborne particulate matter with a median aerodynamic diameter less than, or equal to, 2.5 microns (PM2.5)' and 'airborne particulate matter with a median aerodynamic diameter less than, or equal to, 10 microns (PM10)' as this is the correct and recognized definition ofPM2.s and PM10. Therefore, use only the acronyms PM2_5 and PM10 after defining them upon first use.	The Final IAP/EIS has been updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	27	Editorial Comments	Page 3-2 -Affected Environment * First line -consider replacing 'three-fourths' with 'three quarters' in the first line of page 3-2. * Remove 'rates' in the following sentence... 'Though snowfall is sparser during the summer months, it can occur during any month with the highest average snowfall rates ... ' * Comment for information: Increased greening ofthe Arctic may increase the concentration of ambient VOCs (e.g., the scent of flowers) which may contribute to the photochemical formation of ground-level ozone, which is a powerful air pollutant and GHG (Gibson, M.D., Guernsey, J.R., Beauchamp, S., Waugh, D., Heal, M.R., Brook, J., Maher, R., Gagnon, G.A., Bryden, B., McPherson, J., Terashima, M. (2009) Quantifying the spatial and temporal variation of ground-level ozone in the rural Annapolis Valley, Nova Scotia, Canada using nitrite-impregnated passive samplers. Journal ofthe Air and Waste Management Association, 59(3) pp310-320).	The Final IAP/EIS has been updated.
Fisher	Kevin	North Slope Borough	29290	32	Editorial Comments	Page 3-7 -Attainment Status * Para 2, L 5 -Consider replacing '(for particulate matter smaller than 2.5 microns)' with '(PM2_5)' as it has been defined earlier. * Para 2, L 6 -Consider replacing kilometers with km, so remove 'kilometers' and the parenthesis around km.	The Final IAP/EIS has been updated.
Fisher	Kevin	North Slope Borough	29290	21	Editorial Comments	Page ES-2-Scoping and Issues * There is a punctuation error after the second sentence. There are two periods after “Wainwright.”	The Final IAP/EIS has been updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	29	Editorial Comments	Page 3-4-Impacts Common to All Alternatives * Para 2, L 7 -define PM2.s and then abbreviate to PM2.5 and thereafter. * Para 3, L 3 -after' ... with appropriate mitigation measures' consider giving some example, e.g. spraying roads with water to reduce fugitive road dust and the use of silt fences to reduce surface run-off and erosion during development/production caused by heavy rain. * Para 3, L 5 -the section states that "greenhouse gas emissions ... would likely continue to occur from diesel-fired generators in villages, residential heating, snow machines, all terrain vehicles, occasional aircraft, limited local vehicle traffic, and occasional open burning." These activities would continue to generate GHG emissions. Consider rewording this sentence.	Change was made to the Final IAP/EIS.
Fisher	Kevin	North Slope Borough	29290	38	Editorial Comments	Page 3-17 -Table 3-7 * Beneath the table, change the units 'µg/m3' to 'µg/m3'	The change was made to Final IAP/EIS.
Fisher	Kevin	North Slope Borough	29290	46	Editorial Comments	Appendix H-44-Title * Change 'S02' to "S02.'	The change was made to Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wood	Ruth	_	27357	4	Editorial Comments	I recommend doing NEPA analysis before the draft IAP/EIS is adopted, and, if not, that no lease be granted without a clause to withdraw/cancel such lease if the NEPA analysis warrants it. Furthermore, it is disingenuous to even mention natural gas in this document. People have been talking about gas pipelines from the Arctic for the 30 years I have lived in Alaska. Gas is cheap and pipelines are prohibitively expensive. No one wants our gas and no one wants to pay for a pipeline. I recommend deleting every reference and consideration of natural gas other than to say it is not relevant to the decision from this document.	The IAP/EIS is an adequate analysis of the impacts from the IAP/EIS. Any development will include site-specific NEPA analyses and may incorporate additional protective measures, as appropriate. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

Z.3.16 Environmental Justice

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	1	Environmental Justice	We support the BLM's conclusion in the Draft EIS that, "while economic benefits related to oil and gas production are a countervailing positive impact, the provision of these benefits does not justify a conclusion for any action alternative that no disproportionately high and adverse effects would result." We therefore recommend that the Final EIS: * Disclose how potential disproportionate impacts and environmental justice issues have been or will be addressed by the BLM's decision-making process; * Propose mitigation for unavoidable impacts that are likely to occur; and * Include a summary conclusion, sometimes referred to as an 'environmental justice determination' that concisely expresses how environmental justice impacts have been appropriately avoided, minimized, or mitigated. We further recommend that the BLM directly communicate with the potentially affected environmental justice communities regarding the BLM's final environmental justice determination and the mitigation strategies in the BLM's preferred alternative.	The Final IAP/EIS has been updated to include an environmental justice determination. As stated in the determination, only Alternative B would mitigate environmental justice impacts, relative to Alternative A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Maupin	Siqiniq	Fairbanks	27316	1	Environmental Justice	And I just want to point out that Eben Hopson had also brought this up in the 70s that we are being discriminated against, because it is our land, we are the stakeholders, and we are the most impacted. But we don't understand most of what's being said here. Many times, we come to the BLM hearings, we don't understand what you're saying. And by we, just common people that are not in the science field directly.	An environmental justice analysis is completed to see if Native and/or low-income communities are bearing the brunt of any negative impacts. The BLM agrees that the negative sociocultural, economic, and public health effects that result from decreases in the abundance or availability of subsistence resources in the planning area would be predominately borne by minority and low-income populations in the affected communities. The Draft IAP/EIS notes that these disproportionately high and adverse impacts are anticipated to be of the highest intensity in those North Slope communities closest to areas with the greatest hydrocarbon potential, such as Nuiqsut and Utqiagvik; however, if development of the NPR-A results in more substantial changes to the abundance or availability of subsistence resources, disproportionately high and adverse impacts could extend to a broader set of communities, including communities outside the planning area.
Adams	Jim	National Parks Conservation Association	29262	17	Environmental Justice	BLM has failed to meet these requirements. It has not adequately provided for adequate participation by affected communities, identified the specific potential environmental justice impacts of different alternatives, or addressed ways to reduce those impacts.	In development of the Final IAP/EIS, the BLM is continuing consultation with ANCSA Corporations and has reached out to consult directly with relevant Alaska Native organizations. In accordance with EO 12898 this EIS evaluated the disproportionally high and adverse human health and environmental effect on minority and low-income populations. See Section 3.4.5 in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	4	Environmental Justice	BLM has not given sufficient consideration to environmental justice. Environmental justice, as defined by the Environmental Protection Agency (EPA), is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.2 Executive Order No. 12898 requires that BLM "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs."3 As part of satisfying this obligation, BLM must "provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of meetings, crucial documents, and notices."4 BLM is not currently fulfilling this obligation. 2 EPA, Environmental Justice, https://www.epa.gov/environmentaljustice. 3 Executive Order No. 12898 (1994). 4 President W. Clinton, Memorandum for the Heads of All Departments and Agencies Re: Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 11, 1994).	In development of the Final IAP/EIS, the BLM is continuing consultation with ANCSA Corporations and has reached out to consult directly with relevant Alaska Native organizations. Additionally the BLM held eight public meetings to receive input on the Draft IAP/EIS, including six public meetings in environmental justice communities. In accordance with EO 12898 this EIS evaluated the disproportionally high and adverse human health and environmental effect on minority and low-income populations. See Section 3.4.5 in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	5	Environmental Justice	BLM's failure to appropriately involve NVN in the IAP decision-making process and its failure to provide adequate time for us to review the draft EIS is contrary to its obligations under NEPA and Executive Order No. 12898.	In development of the Final IAP/EIS, the BLM is continuing consultation with Tribal Governments and has reached out to consult directly with the Native Village of Nuiqsut. The comment period was extended by 15 days in response to stakeholder request.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	6	Environmental Justice	The draft EIS also downplays the environmental justice impacts of oil and gas development. While BLM acknowledges "disproportionately high and adverse effects on minority, low-income, and tribal populations"5 under all four alternatives, it does not explain what those impacts are, or how they may differ across alternatives. BLM must describe what these adverse effects are and how they will play out in our community.5 Draft EIS at 3-274.	The IAP/EIS analyzes disproportionately high and adverse effects on minority, low-income, and tribal populations would occur primarily through decreases in the abundance or availability of subsistence resources occurring in the planning area. As discussed in other resource impact analyses in the Draft IAP/EIS, these subsistence impacts, in turn, have a sociocultural, economic, and public health dimension. The Draft IAP/EIS notes that environmental justice impacts are anticipated to be of the highest intensity in those North Slope communities closest to areas with the greatest hydrocarbon potential, such as Nuiqsut and Utqiagvik; however, if development of the NPR-A results in more substantial changes to the abundance or availability of subsistence resources, disproportionately high and adverse impacts could extend to a broader set of communities, including communities outside the planning area.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Williams	Vera	Utqiavik	27403	6	Environmental Justice	And just as a, you know, subsistence user, if, you know, things start coming and it comes to our -- to right to our front table that we're being affected, caribou is not here, we're trying to find them, it's taking us another 1,000 to 2,000 dollars to go to a different river or somewhere else to try to find them. Those are the things that we have to think about. And just $100 gift certificate will not help, you know, a subsistence user or a hunter; possibly just for a little bit of gas. Especially, it's about $6 a gallon here in Barrow. So you -- those are things you need to think about what we have to do: Buy propane, it's expensive. Gas is very expensive. And to maintain our boats and outboards, those are also another, you know, handful of funds we have to try to have to sustain our subsistence way of life. So, you know, those are things that are out of our own pocket expense. And if it comes to that point, I would want you guys to think about all what we go through now, so you guys could have some impact funds to help those that do all this types of funding if -- and put it into your decision making. Call the tribal organizations. Set up a funding, whatever source.	Except as required by law, BLM policy prohibits imposing compensatory mitigation on public land users. Subsidizing subsistence users would fall under compensatory mitigation.

Z.3.17 Fish

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	40	Fish	Page #: 3-111, para 3 Table or figure: Reviewer Name/Agency: ADF&G Comment: There are lots of references to the ADF&G Anadromous Waters Catalog (AWC) for describing Anadromous fishes and habitats, but the authors are apparently unaware of the ADF&G Lake Database, which has descriptions of the fishes and habitat over 30 lakes in the NPR-A (http://www.adfg.alaska.gov/index.cfm?adfg=fishingSportStockingHatcheries.lakesdatabase) Suggestion if applicable: Explore the ADF&G Lake Database for helpful information regarding fish presence and lake characteristics in NPR-A	The Final IAP/EIS Section 3.3.3 has been updated to account for additional information on fish resources in lakes of the NPR-A. The section references the ADF&G Lake Database for known fish resources.
Bruno	Jeff	State of Alaska	29317	50	Fish	Page #: M-4 Table or figure: Appendix M, Table M-2 Reviewer Name/Agency: ADF&G Comment: Add the following to Table M-2: Maguriak Creek, 330-00-30980-2004-3017, Chum Avalik River, 330-00-10980-2100, Pink Ketik River, 330-00-10980-2100-3010, Pink, Chum Suggestion if applicable:	The Final IAP/EIS Appendix M has been updated to include additional information on fish resources in Maguriak Creek, Avalik River, and Ketik River for salmon presence. The Essential Fish Habitat Figure (Map M-1) to recognize these additional anadromous streams has also been updated.
Bruno	Jeff	State of Alaska	29317	39	Fish	Page #: 3-110 Table or figure: ADF&G Reviewer Name/Agency: Comment: Under Anadromous Fishes, Arctic cisco are listed as an anadromous fish species found in NPR-A. It does occur there and is an important subsistence species, however Arctic cisco spawn in Canada's Mackenzie River in September and do not reproduce in Alaskan waters. The Arctic cisco also does not commonly occur west of Utqiagvik. Suggestion if applicable: Note difference in life history between Arctic cisco and other Anadromous fishes found in NPR-A	The Final IAP/EIS Section 3.3.3 has been updated for clarity on Arctic cisco life history in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	41	Fish	Page #: 3-114, para 5 Table or figure: Reviewer Name/Agency: ADF&G Comment: Last paragraph under "Indirect Habitat Alteration: Flow Alteration and Fish Passage" Please include statement that ADF&G fish passage and fish habitat permits may be required for work in fish-bearing waterbodies.	The Final IAP/EIS has been updated to include Alaska Department of Fish and Game fish passage and fish habitat permits may be required for work in fish-bearing waterbodies.
Bruno	Jeff	State of Alaska	29317	42	Fish	Page #: 3-117, para 5 Table or figure: Reviewer Name/Agency: ADF&G Comment: The Alaska Department of Fish and Game, Division of Habitat is now the Alaska Department of Fish and Game, Habitat Section. Suggestion if applicable: Search and replace "Division of Habitat" within the text (excluding the list of references) of this document.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	51	Fish	Page #: M-5 Table or figure: Appendix M, map M1 Reviewer Name/Agency: ADF&G Comment: Several rivers that have records of salmon present and/or spawning are not noted on the Essential Fish Habitat Assessment map, such as the Meade River, Avalik River, Ketik River and Maguriak Creek. Suggestion if applicable: Reference the ADF&G Anadromous Waters Catalog for complete documentation of salmon presence https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADF&G=main.interactive	Map has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	17	Fish	Page #: 3-93; 3-107; 3-123 Table or figure: Reasonably foreseeable projects Reviewer Name/Agency: ADNR Comment: The Liberty project described on page F-9 is referenced as a reasonably foreseeable future project in some places (3-224, 3-267), but not in others. Suggestion if applicable: Consider adding Liberty as a reasonably foreseeable future project in additional sections of the document.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	49	Fish	Page #: M-2 Table or figure: Appendix M, M.2.1, Paragraph 2 Reviewer Name/Agency: ADF&G Comment: Sentence reads "…and it is likely that at least pink and chum salmon have established small, but sustainable spawning populations in a number of streams on the North Slope of Alaska (Craig and Haldorson 1986)." Suggestion if applicable: There is much newer information on Pacific salmon in the Arctic than 1986. The latest is: Carothers et al. 2019. Pacific Salmon in the Rapidly Changing Arctic: Exploring Local Knowledge and Emerging Fisheries in Utqiagvik and Nuiqsut, Alaska. Arctic Vol 72 No 3	The new reference was incorporated into the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	123	Fish	DEIS failed to include adequate information and key details about each species and its habitat in the affected area. The DEIS almost entirely excludes background information about each species, providing instead "modified, condensed text based on the 2012 IAP/EIS."751 The subsequent summary - just a few pages - provides virtually no information about the diverse fish species and their varying distribution patterns, habitat needs, and life history characteristics, all of which are necessary to understand before evaluating the effects of the project. Instead, the DEIS lumps all fish species and their needs together, only occasionally differentiating between anadromous, coastal, and freshwater species. As a result, the DEIS ignores seasonal or temporal differences in habitat for spawning, rearing, migration, and other life cycle needs for each species, despite recognizing that certain habitat requirements between fish species can "vary greatly."752 ---------- 751 1 DEIS at 3-107. 752 1 DEIS at 3-108.	Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, including page limitations for NEPA documents. Information related to habitat types and individual fish species are referenced and discussed in detail in the 2012 IAP/EIS, as described in CEQ NEPA regulation 40 CFR 1502.21, which encourages incorporation by reference. The Final IAP/EIS was updated to clarify that individual species have distinct habitat requirements for spawning, rearing, or migration, along with other life history needs.
Donahey	Leah	Alaska Wilderness League	29320	127	Fish	-The DEIS reveals that locations of activities under the IAP are unknown and may vary, which prevented the agency from considering accurately what impacts will occur to which species.763 ------- 763 1 DEIS at 3-111	At the programmatic level, the BLM does not have enough information about where development will be located to analyze specific locations and what impacts will occur on which species. This plan makes no decision regarding the exact location of development, and specific analysis of projects will be done in a subsequent NEPA analysis when proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	128	Fish	-The DEIS provides a cursory analysis of “direct” and “indirect” impacts to habitat without connecting the dots to what such impacts mean to individual fish, populations, or species as a whole.764 -------- 764 1 DEIS at 3-112 to 3-116.	At the programmatic level, the BLM does not have enough information about where development will be located to analyze specific locations and their potential impacts on populations or species of fish and their habitats. This plan makes no decision regarding the exact location of development, and specific analysis of projects will be done in a subsequent NEPA analysis when proposed. However, where applicable, the Final IAP/EIS has been updated to include additional detail to discuss the broader implications for fish (individuals, species, and populations) of direct and indirect impacts on fish habitat.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	125	Fish	-The DEIS acknowledges that connectivity between lakes and other waterbodies varies between seasons and depends on flows, but fails to evaluate how water withdrawals or other activities may impede such connectivity and thereby strand or otherwise impact fish that use these areas.760 This was an especially egregious omission given the DEIS's failure to quantify how much water was likely to be removed from specific waterbodies and its acknowledgment that climate change may further reduce connectivity between aquatic habitat in the area.761 -------- 760 1 DEIS at 3-108; see also discussion on water resources. 761 1 DEIS at 3-111; see also discussion on water resources.	BMPs/ROPs B-1 and B-2 objectives are to require water withdrawals to be conducted in a manner that maintains fish populations and their habitats and that their natural hydrologic regimes be maintained for lakes and ponds (and to maintain populations of aquatic habitat and organisms). The BLM believes that these impacts will be minimal or nonexistent. Details on water withdrawals are provided in the Water Resources Section 3.2.11. At the programmatic level, the BLM does not have enough information to know the water quantities necessary for removal for any given project activity. Section 3.3.3 describes industry requirements for limitations on water withdrawal in detail and notes impacts on fish from dewatering (e.g., oxygen depletion, habitat availability, and nutrient/food resource availability). The BLM addressed the issue of “flow alteration and fish passage” in Section 3.3.3. The Final IAP/EIS was updated to clarify that connectivity between waterbodies (via streams) may be impacted.
Donahey	Leah	Alaska Wilderness League	29320	126	Fish	-The DEIS acknowledges that gravel is “relatively uncommon in much of the NPR-A” and that some fish are dependent on gravel to fulfill their reproductive needs, but never address how the removal of massive amounts of gravel may impact these reproductive needs.762 -------- 762 1 DEIS at 3-109.	The impacts of gravel removal are discussed in Section 3.3.3. The Final IAP/EIS was updated to address impacts on spawning (for some species) from gravel removal or placement in waterbodies.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	124	Fish	-The DEIS failed to fully or accurately describe how various impacts of the project will affect each fish species and its habitat. Instead, the DEIS lumped all fish species and habitats together when evaluating impacts, which masks impacts to individual species or populations. Because different species have different habitat or life history needs, population levels, or sensitivities, the project may affect each species differently and thus project impacts should have been evaluated at a more species-specific level. -The DEIS reaches virtually no conclusions about the impacts of the IAP on individuals, let alone at the population or species level. Neither the DEIS nor supporting appendices provide estimates of how many individuals will be affected or the thresholds for loss that each fish population/species can sustain. Without such information, the agency cannot rationally conclude that impacts to individuals will not affect a population or species as a whole. -The DEIS fails to evaluate the differences in impacts to fish and fish habitat between alternatives, merely cataloguing differences in activities between alternatives without a meaningful or complete effects analysis.759 --------- 759 1 DEIS at 3-118 to 3-121.	As this is a planning-level EIS, with no specific project footprint, it would be impossible to estimate which species, individuals, or populations of fish might be impacted by development over such a vast study area. The BLM agrees with the reviewer that individual species (and populations of species) have different habitat needs. However, the BLM cannot quantify estimates of fish impacted by specific alternatives, because there is no specific project to assess and therefore estimates of fish impacts would be purely speculative.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	129	Fish	-The DEIS provides little analysis or consideration of the impact to fish and fish habitat from increased vessel traffic and wastewater, both within and outside of the NPR-A. -The DEIS provides a cursory analysis - less than two pages - of impacts that may result in injury or mortality of individual fish.765 This meager section brushes over direct and indirect mechanisms through which the project threatens to injure or kill fish, including low water or dissolved oxygen levels (as discussed above), destruction of habitat, disturbance of life history needs like spawning or migrating, and more. The DEIS also failed to estimate the number or scope of injuries or mortality expected and to which species, which made it impossible for the agency to accurately assess impacts on each species and population. For these reasons, the section on injury or morality is misleading and inaccurate. -------- 765 1 DEIS at 3-117 to 3-118.	As this is a planning level IAP/EIS with no specific project footprint, it would be impossible to estimate which species, individuals, or populations of fish might be impacted by development over such a vast study area. The BLM agrees with the reviewer that individual species (and populations of species) have different habitat needs. However, the BLM cannot quantify estimates of fish impacted by specific alternatives, because there is no specific project to assess and therefore estimates of fish impacts would be purely speculative.
Schell	John	ConocoPhillips Alaska	29272	90	Fish	3-113 Paragraph 6 Road dust accumulation is greatest within 35 feet of roads, but deposition typically occurs over a broader area. Roughly 95 percent of dust settles within 328 feet from the road surface (Myers-Smith et al. 2006; Walker and Everett 1987). Dust could increase turbidity in waterbodies next to roads and construction areas, which may inhibit normal physiological function in fish (e.g., oxygen uptake across gill membranes), and could increase sediment and gravel inputs to existing substrates. The DEIS overstates the impact of fugitive dust. The analysis uses 1980s and early 2000 Dalton	The Final IAP/EIS has incorporated the Kuukpik Corporation 2016 study. The BLM revised the estimates of resulting dust shadows and clarified that the estimates are a conservative overestimate. Analysis predicting variation in the width of the dust shadow due to road width, speed limit, topography and prevailing winds have been included in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	90 *(cont.)*	*(see above)*	Highway studies to support the notion that impacts from indirect dust shadow extend to 100 meters from road developments. The reports cited clearly state that dust impacts decrease logarithmically out to 100 meters and beyond. This corroborates the Walker and Everett (1987) findings that fugitive dust impacts past 30 meters are difficult to measure. More importantly, the study relies upon measuring dust accumulation along the Dalton Highway where traffic volumes, speed limits, and vehicle size are much greater than traffic expected in the Planning Area. This approach in the DEIS seems unreasonable in quantifying indirect dust shadow impacts expected and should be revised. A recent dust deposition study (Kuukpik Corporation, 2016) was completed by the Kuukpik Corporation (Kuukpik) as a special condition of their Corps Permit (POA 2013-68) to construct the Nuiqsut Spur Road and storage pad (Kuukpik pad). The Nuiqsut Spur Road is a 24 feet wide, 6 miles long private road with a posted speed limit of 25 mph, and connects Nuiqsut to the Alpine well site CD5 Access Road. The Kuukpik Pad is a 10-acre gravel storage pad at the intersection of the Nuiqsut Spur Road and the CD5 Access Road. (continued below).	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	91	Fish	Page 3-113 Paragraph 6 Road dust accumulation is greatest within 35 feet of roads, but deposition typically occurs over a broader area. Roughly 95 percent of dust settles within 328 feet from the road surface (Myers-Smith et al. 2006; Walker and Everett 1987). Dust could increase turbidity in waterbodies next to roads and construction areas, which may inhibit normal physiological function in fish (e.g., oxygen uptake across gill membranes), and could increase sediment and gravel inputs to existing substrates. (continued from above). This road and pad are appropriate analogs for addressing fugitive dust within the Planning Area than the Dalton Highway (i.e., Walker and Everett, 1987). The Kuukpik study found that insoluble dust travels up to 50 feet away from the east side of the spur road, 50 feet away from the storage pad and 25 feet away from the west side of the spur road. The Corps concurred with Kuukpik's findings and submitted a Permit Modification to Kuukpik on June 17, 2017, finding that no additional dust suppression was necessary because dust did not extend 200 feet from the fill edges. BLM should revise the anticipated dust shadow to 50-feet from the edge of gravel placement along roads, and account for the fact that even a reduced dust shadow will be further mitigated by operator's best management practices. This impact should be reconsidered with a more reasonable and accurate assessment of the potential impact from dust on waterbodies near roads and construction areas.	The Final IAP/EIS has been updated to include discussion of results from Kuukpik 2016 and from Walker and Everett 1987. The results in Kuukpik 2016 are preliminary (from the 1st year of a planned -year study), and are for the Nuiqsut Spur road only. Vehicle traffic does not appear to be a covariate in the analysis of dust accumulation for the 2016 study. The dust shadow along the spur road is likely to increase in width over time, and thus a wider estimate is advisable, based on previous longer term studies, such as that by Walker and Everett (1987).

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	92	Fish	Page 3-114 2nd Paragraph "Delayed melt of ice roads or pads can also temporarily block fish passage, which can impede Arctic fish attempting to migrate from overwintering areas to feeding habitat during the early part of the open-water season (Arp et al. 2019)." This statement is not correctly reflective of information (i.e., Arp et al. 2019) and is misleading in light of current, routine practice of slotting ice over water crossings. Ice road water crossings over fish habitat are carefully managed and permitted (approved) by state department of fish and game (ADF&G). ConocoPhillips has extensive experience and expertise constructing ice road bridges on the North Slope and ensures crossings are slotted or broken up to ensure timely melt along with surrounding naturally-developed ice so as not to pose an impediment to fish passage during spring. There is no data to suggest blockage of fish has occurred despite these proven methods.	It would be difficult to prove that no blockage (however temporary) may occur in the early part of the open water season. However, additional language was added to clarify that current procedures include slotting of ice-road bridges.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	93	Fish	Page 3-115 Paragraph 5 Dewatering may also increase the rate of oxygen depletion in lakes, which are increasingly depleted of oxygen during the 8 months of ice cover (Leppi et al. 2015). ConocoPhillips disagrees with the use of the word "dewatering" in this paragraph as that is not what occurs. Water withdrawal may occur from lakes, but in no cases is a lake being entirely "dewatered" because spring recharge replaces withdrawn water and the resource is maintained in balance. ConocoPhillips recommends BLM replace the word "dewatering" with "water withdrawal" in this sentence.	The Final IAP/EIS has been updated, as recommended.
Schell	John	ConocoPhillips Alaska	29272	94	Fish	Page 3-115 Paragraph 3 Additionally, there is the danger of uptake of fish into the pumping system (Cott et al. 2008). BLM neglects to consider current and existing required mitigations that include use of fish screens on all uptake pumps. Fish uptake danger is mitigated by the use of fish screens. The report cited did not include mention of fish uptake into a pumping system. In fact, the report notes that water withdrawal did not have any impact on Northern pike abundance, and post-withdrawal catch rates at two of the three lakes was higher. The report also notes that oxygen concentrations and volume of overwintering habitat remained suitable to support the overwintering target species.	The Final IAP/EIS has been updated to note mitigation of fish uptake dangers via the use of fish screens on pumps. Cott et al. (2008) has been referenced with respect to their findings on habitat and oxygen levels.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	95	Fish	Page 3-116 Paragraph 1 Discharge from a seawater treatment plant, such as brine, filter backwash water, and rinse/cleaning water, could cause water quality alterations, such as increased salinity and reduced DO, in the waterbody in which it is being discharged... Discharge to surface waters is regulated by the State of Alaska, under the Clean Water Act. In accordance with existing requirements, a project proponent must obtain an APDES permit for this type of activity. This permit and associated requirements are designed to minimize and eliminate any of the impacts that BLM describes in this text. ConocoPhillips recommends BLM include language to this effect.	Obtaining a permit and associated requirements does not completely eliminate a potential discharge into waters. The Final IAP/EIS has been updated to include permit requirements designed to minimize and eliminate impacts on fish and fish habitat.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	88	Fish	3-112 Paragraph 4 A typical satellite well pad associated with potential future development in NPR-A would lead to approximately 15 acres of ground disturbance and roads would cause ground disturbance of approximately 7.5 acres per mile. ConocoPhillips disagrees with the description of a typical satellite well pad and road acreage disturbance under the "Direct Habitat Loss or Alteration" discussion within the Fish Section. A well pad may indeed be approximately 15 acres, but the entirety of that acreage is unlikely to fall within fish habitat. In fact, only a very small percentage of total fish habitat would ever be lost from typical oil and gas development as fish-bearing lakes are never destroyed and any fish-bearing water body crossings are engineered to have minimal footprint in fish habitat, and often have none. Fish habitat is protected under robust existing federal and state requirements. ConocoPhillips recommends BLM revise these statements accordingly.	A small percentage of well pad acreage located in fish habitat may have impacts on fish species/individuals/populations via runoff directly to waterbodies or indirectly through (potentially) impacted fish and their movement between waterbodies. The Final IAP/EIS has been updated to clarify mitigation of these impacts on fish via governmental requirements.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	89	Fish	Page 3-113 Paragraph 3 Use of bridges and culverts could directly alter aquatic habitats by replacing substrates, banks, or both with metal pipe or pilings and abutments. This infrastructure would directly impact flows and therefore fish habitat or fish movement in those areas. The impact analysis that bridges and culverts could directly alter fish habitat and fish movement is without regard to the current NPR-A IAP EIS (2013) BMPs E-6 and E-14 and existing federal and state requirements that effectively manage and protect fish habitat and fish movement. The proposed ROP E-6 specifically requires a project proponent to "design and construct stream and marsh crossings to ensure free passage of fish, reduce erosion, maintain natural drainage, and minimize adverse effects to natural stream flow," which restates the current requirement of BMP E-6. Additionally, there are further requirements regarding data collection and similar efforts all designed to ensure that this impact does not occur.	The Final IAP/EIS has been updated as recommended with reference to ROP E-6 and BMP's E-6 and E-14 in addition to requirements for data collection on stream flow and habitat conditions post-construction.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	40	Fish	Page 3-111 -Section 3.3.3, Essential Fish Habitat, Climate Change * There should be discussion ofthe continuing fish mold (saprolegniosis) issue and concern among the residents of Nuiqsut in the Final EIS. * “Additionally, warmer water temperatures may increase susceptibility to diseases and parasites (Roberts 1975), ...” o Please add: “Additionally, warmer water temperatures may increase susceptibility to diseases and infections such as saprolegniosis (Sformo et al. 2017) and parasites (Roberts 1975), ...” * Cite: Sformo, Todd L., Billy Adams, John C. Seigle, Jayde A. Ferguson, Maureen K. Purcell, Raphaela Stimmelmayr, Joseph H. Welch, Leah M. Ellis, Jason C. Leppi, John C. George. Observations and first reports of saprolegniosis in Aanaakliq, broad whitefish (Coregonus nasus), from the Colville River near Nuiqsut, Alaska. 2017. Polar Science 14: 78-82.	The Final IAP/EIS was updated as recommended.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Brower	Frederick	Utqiavik	27400	3	Fish	I know there's been issues as far as -- concerns from local hunters in regards to their fish, but we live in an area that oil seeps out in rivers. But we're not holding anyone accountable for that. The oil is still seeping into the rivers. That's a concern. I mean, if we can't mitigate a natural process, how -- who is to say that it's industry's fault that did that when fish are having issues to a natural process? There's just no one to blame, except mother nature. But, at that same point, it's kind of, I'm impacted. So, you know, I'm kind of playing a double-edge sword here, but understanding what the resources are, understanding that we come from an area there's plenty of natural gas, plenty of oil, and it just seeps out, but, because it's not regulated, we can't do anything about it. So if there's an opportunity to change the regulation to where we're going to fix the world's problems as far as bandaiding [sic] every issue that's seeping out, you know, maybe we'll, you know, be able to fix the issue with the marine activity as far as the fish. I mean, because this is no one else's issue except mother nature's, in my perspective. Because I did ask that question, at one point is, well, say one private entity who's searching for resources in the great Prudhoe Bay area, they're held to a standard. But, I mean, at what point can we hold -- or what can we do within our region, North Slope region, where there's an abundance of many natural resources for us to hunt? But for their protection -- but because there's no regulation that stops mother nature from doing its process, you know, we're not really getting anywhere.	The BLM would not require permittees to clean up natural seeps. In areas where natural seeping occurs, the BLM would consider additional monitoring and mitigation requirements to ensure that a seep is not exacerbated by a permittees activities.

Z.3.18 Geology and Minerals

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	66	Geology and Minerals	Page 3-35 Paragraph 4 Subsidence Regarding the statement: "Because of the presence of ice-rich permafrost, about 2/3 of the NPR-A has the potential for thaw settlement of 16 to 98 feet (Jorgenson et al. 2015)". With regard to the citation, settlement potential is overstated and does not accurately reflect the conclusions of the cited paper.	The Final IAP/EIS was updated for clarification to read "…has the potential for localized maximum thaw settlement of 16 to 98 feet if all segregated and massive ice were to thaw extending to the depth of the surficial deposit."
Donahey	Leah	Alaska Wilderness League	29320	80	Geology and Minerals	Although BLM does not modify the boundaries of the Utukok Special Area, it does propose under Alternatives C and D to open significant new areas to leasing and other infrastructure that are protected under the 2013 IAP. BLM has not been transparent about the reasons for this proposal and has not evaluated the potential impacts. There are concerns about potential interest in hard rock and coal mining in the southwestern NPR-A that have not been addressed in the IAP.	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. The NPRPA prohibits hard rock mining within the NPR-A. However, this prohibition only applies to land managed by the BLM. Private property owners are not governed by the NPRPA. Portions of the Utukok River Uplands Special Area were opened to infrastructure and leasing under Alternatives C and D at the request of stakeholders during scoping. The BLM is required to consider this as part of a broad range of alternatives.
Adams	Jim	National Parks Conservation Association	29262	7	Geology and Minerals	Federal public lands in the NPR-A are currently closed via legislation to coal and mineral leasing and development and the IAP should clearly state this.	As stated in Section 1.6 in the IAP/EIS, the IAP/EIS makes no decision on opening lands to hard rock or coal mining.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	8	Geology and Minerals	While the draft IAP/EIS claims to make “no decisions on opening lands to hard rock or coal mining” (p.1-4), we are concerned that it may nonetheless serve to facilitate mining. The supplemental comments submitted January 29, 2019 by the North Slope Borough (NSB) to BLM as part of the IAP/EIS scoping period requested that BLM analyze potential development and export of coal and other minerals (NSB 2019). They pointed out that the NSB “has patent to 380 acres of land within the southwestern NPR-A with high prospect for the production of lead and zinc” (NSB 2019 p.1-2). These acres lie within the southern area of the current Utukok River Uplands Special Area, where infrastructure is currently prohibited, in large part to protect WACH calving, migration and summer use. It is striking to us that both alternatives C and D open this southern area to leasing and new infrastructure, in spite of statements in the DEIS that “oil and gas development is not expected in this area” (p.3-174). No explanation is given for why these areas are opened but they have the effect of removing infrastructure and leasing prohibitions in areas of potential coal and other minerals. We ask that BLM provide further explanation in the final IAP/EIS for why these areas have been opened.	The NPRPA prohibits hard rock mining within the NPR-A. However, this prohibition only applies to land managed by the BLM. Private property owners are not governed by the NPRPA. Portions of the Utukok River Uplands Special Area were opened to infrastructure and leasing under Alternatives C and D at the request of stakeholders during scoping. The BLM is required to consider this as part of a broad range of alternatives.

Z.3.19 GIS Data and Analysis

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Patil	Vijay	_	27372	1	GIS data and analysis	First, map 3-19 indicates that selected areas of habitat cover 85% of the molting black brant population in the TLSA. However, the mapped areas do not include any coastal habitat in the eastern part of the TLSA, such as the Garry Creek estuary. Aerial surveys indicate that black brant have become increasingly concentrated in coastal habitat(2), and almost 30% of the black brant molting near Teshekpuk Lake could be found at Garry Creek in 2017(4). Based on these survey data, the highlighted areas on map 3-19 would not account for 85% of the black brant population. The underlying analysis should be re-run the best available survey data, and alternative scenario D, which uses map 3-19, should be updated accordingly.	The Final IAP/EIS has been updated to correct the figure and the analysis.
Donahey	Leah	Alaska Wilderness League	29320	255	GIS data and analysis	The newest leases are in an area that BLM identified in its analysis and maps as having only a medium potential for development.462 This latest move by North Slope Exploration demonstrates that there is a higher likelihood that industrial activities than BLM accounted for on that map and considered in its analysis. BLM needs to revise the map and update its analysis to take new information into account. ---------- 462 See, e.g., 2 FEIS at E-4 fig.1.	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period has been reviewed and included, as appropriate, in the Final IAP/EIS. The maps in Appendix A have been updated to show all currently held leases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	4	GIS data and analysis	It is ConocoPhillips' understanding that BLM does not intend new "lease stipulations" in the revised IAP/EIS to apply to existing leases, which means they would not apply to any part of the proposed Willow MDP. ConocoPhillips supports this approach - in fact we believe it is required by law - and we urge BLM to make this abundantly clear. Most leases in the BTU are subject to lease stipulations from the 2008 IAP/EIS, and it would be helpful for BLM to produce a map that depicts existing leases in the NPR-A and identifies the version of IAP lease stipulations that apply to each lease.	Existing leases would not be affected by the stipulations or closures considered in the alternatives for this IAP/EIS. However, if a lease is renewed for an additional 10-year term under 43 CFR 3135.1-6, the lease stipulations of the new IAP would replace the original lease stipulations. Chapter 2 has been updated in the Final IAP/EIS with a more thorough description of how similar ROPs and stipulations will be applied.
Lavin	Pat	Defenders Of Wildlife	29308	3	GIS data and analysis	Although denning habitat data is incomplete, the denning habitat depicted on Map 3-25 should be expanded to include known denning habitat to the west of the surveyed area.	The denning habitat identified on the map is from a model that requires specific input not available from areas farther west. The actual den locations are shown instead.
Patil	Vijay	–	27372	1	GIS data and analysis	(4) Shultz, B. and Zeller, T. 2017. Abundance and Distribution of Molting Geese in the vicinity of Teshekpuk Lake, Alaska, July 2017. USFWS Report.	The IAP/EIS had incorporated the recent reference (Shults and Zeller 2019) and was cited within the document.
Patil	Vijay	–	27372	1	GIS data and analysis	(2) Flint, P.L., Mallek, E.J., King, R.J., Schmutz, J.A., Bollinger, K.S. and Derksen, D.V., 2008. Changes in abundance and spatial distribution of geese molting near Teshekpuk Lake, Alaska: interspecific competition or ecological change?. Polar Biology, 31(5), pp.549-556.	This citation provides information on goose population and distribution in the Teshekpuk Lake Special Area. It was updated by Flint and Thompson (2018). The Final IAP/EIS was updated in Section 3.3.4 to add this citation to the discussion of changing coastal habitat and use by brant and the discussion of changing goose populations in the Teshekpuk Lake Special Area.

Z.3.20 Government-to-Government Consultation

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Moriarty	Kara	Alaska Oil and Gas Association	29265	2	Government to Government Consultation	The Draft IAP/EIS does not correctly identify Traditional Knowledge. AOGA disagrees with BLM's characterization of the material presented in Appendix Y as "Traditional Knowledge." Most of the information presented in Appendix Y contains the public comments received by certain members of Alaska Native communities, which do not necessarily reflect the views of those communities as a whole. Additionally, many of those individual comments are either misleading or factually incorrect. These comments are not "Traditional Knowledge," as that term is applied in federal review processes. Traditional Knowledge is the collective wisdom and knowledge of people passed down over generations that guides a traditional way of life. BLM's sister agency, the Bureau of Ocean Energy Management, describes Traditional Knowledge as follows: Noted author Barry Lopez defined it as "vast and particular knowledge . . . garnered from hundreds of years of . . . patient interrogation of the landscape." Canada's Traditional Knowledge Working Group stated that ". . . traditional knowledge of northern aboriginal peoples has roots based firmly in the northern landscape and a land-based life experience of thousands of years. Traditional knowledge offers a view of the world, aspirations, and an avenue to truth different from those held by nonaboriginal people whose knowledge is based largely on European philosophies." Tom Albert,	Traditional Ecological Knowledge was referenced in sections where they were relevant. Quotations were removed from the main body of the Final IAP/EIS text and paraphrased. Quotations can be found in Appendix Y.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	2 *(cont.)*	*(see above)*	biologist for Alaska's North Slope Borough, defined traditional knowledge as "information about the natural world from generations of observations by Native people who could be killed if they acted on wrong information. With this in mind there is a strong tendency for traditional knowledge to lean toward the truth." . . . . Traditional knowledge is frequently the aggregate of many generations, gathered in oral form. . . . For the gatherers of traditional knowledge, non-empirical elements are openly spiritual and give foundation for an ethical system of behavior between humans and animals.3 3 Bureau of Ocean Energy Management, Traditional Knowledge (1996), https://www.boem.gov/about-boem/traditional-knowledge. AOGA recommends that BLM identify only information that truly represents Traditional Knowledge as such. The other commentary from Alaska Native communities is certainly important, should be disclosed, and reflects the wealth of individual testimony that has been solicited and received by BLM. That testimony, however, should be differentiated from Traditional Knowledge.4 4 See Stacie McIntosh, Incorporating Traditional Knowledge in the Bureau of Land Management's Planning Process in the National Petroleum Reserve-Alaska, Practicing Anthropology 38 (2005), https://www.fws.gov/nativeamerican/pdf/tek-j-sepez.pdf	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hugo	Mary	Anaktuvuk Pass	29327	1	Government to Government Consultation	So lately I know that a lot of our community members are on Facebook but we see businesses that are based like in Palmer and Wasilla and they have their businesses that go to Umiat and they do sport hunting and people pay thousands and thousands of dollars to catch a caribou, to go out there and get that experience. Why don't we have any control over that? Why can't we be a part of it? Because if we can't stop it, we should at least be in there to try and control it, because it's so close to our community. What they do up there affects what happens down here during that time period. Our entities should be involved, our tribe, our court, in the actual permitting process.	The State of Alaska establishes the open season for sport hunting. It would be inappropriate for the BLM to effectively circumscribe the open season by limiting the time period for which sport hunting guides may obtain permits.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	2	Government to Government Consultation	ASRC has not yet consulted with BLM on the NPRA IAP Draft EIS. BLM should also conduct the required consultations with the affected Alaska Native Corporations and tribal governments; consultation is a critical mechanism for BLM to develop strong working relationships with Alaska Native partners and to demonstrate how Alaska Native input is captured in the forthcoming NPRA IAP EIS. Due to changing meetings and other scheduling issues, ASRC has not had an ANCSA Corporation consultation with BLM yet on this draft NPRA IAP EIS. Also of great concern to us is that fact that BLM has not had had consultations with Atqasuk Corporation or Ukpeagvik Iñupiat Corporation. For both these corporations, there is federal ownership of minerals under that village corporation lands and the final NPRA IAP will have major implication for these corporations and their shareholders.	In development of the Final IAP/EIS, the BLM consulted with ANCSA Corporations and has reached out to consult directly with relevant Alaska Native organizations.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	3	Government to Government Consultation	NPRA Working Group ASRC strongly supports the NPRA Working Group that was established under Record of Decision for the NPR-A IAP on February 21, 2013. "The decision also adopts a formal approach to provide for a continuing dialogue with local communities, tribal organizations, and Native corporations on the North Slope through the establishment of the NPR-A Working Group. The NPR-A Working Group will ensure that BLM's land managers engage in a continuing dialogue with North Slope residents, understand their economic, subsistence, and wider social interests in activities in NPR-A, and gather scientific and traditional ecological knowledge related to key issues that arise during implementation of the plan and as the BLM considers proposed activities in the NPR-A. Such matters may include leasing activities, exploration programs, proposed oil and gas developments, potential pipelines supporting offshore oil and gas development, subsistence and wildlife issues, and related matters." The NPRA Working Group was created as a forum for BLM to collaborate meaningfully with the local people and for the local people to meaningfully contribute to management of the NPRA. During the current NPR-A IAP/EIS process, the NPRA Working Group has not been utilized as it was intended. BLM should have held a face to face NPRA Working Group meeting during the public comment period. This is a missed opportunity by the BLM to get meaningful input from a wide cross-section of North Slope residents.	Due to difficulties soliciting bids to facilitate the NPR-A Working Group, it was not possible to hold a face-to-face meeting of the Working Group during the public comment period. The BLM is pursuing options to hold a face-to-face meeting in the future.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Obed	Sarah	Doyon, Limited	27862	5	Government to Government Consultation	To ensure that such an effort benefits local communities and economies while addressing impacts, in identifying and designating any corridors under the revised IAP, BLM must consult with representatives of the State of Alaska, the North Slope Borough, the Arctic Slope Regional Corporation, and Native village corporations and federally recognized tribes in the Arctic Slope Regional Corporation ("ASRC") region. This includes the north-south corridors proposed under Alternatives B and C. The Draft IAP/EIS notes that specific locations for these corridors "would be developed in subsequent National Environmental Policy Act (NEPA) analyses," subject to certain resource stipulations and required operating procedures, "when a pipeline project is proposed." Draft IAP/EIS, p. 2-5. The final IAP should make clear that BLM will consult with appropriate Alaska Native interests in developing specific locations for these, and any other, corridors.	This plan makes no decision regarding the exact location of such corridors, and potential corridors shown on maps are shown for representational purposes only. Specific pipelines will be analyzed in subsequent NEPA analyses when a pipeline project is proposed, and consultation with affected stakeholders will occur at that time. Language was added to ROP E-23 in the IAP/EIS to specify consultation with appropriate Alaska Native interests.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Pardue	Margaret	Native Village of Nuiqsut	5722	2	Government to Government Consultation	the Tribal Council of the Native Village of Nuiqsut by this resolution hereby strongly urges that relevant Federal, State, and local agencies engage outside experts in coordination with the Native Village of Nuiqsut to conduct comprehensive environmental baseline studies before any new oil and gas exploration and development activities, including the Willow MDP, CPAI's 2019-2020 winter exploration program, the Nanushuk Project, and the North Slope Borough's rezoning of the Nanushuk Project area from conservation district to development district, are approved near Nuiqsut or in its subsistence use areas.	The IAP/EIS will not result in the authorization of any on-the-ground activities. Accordingly, the environmental baseline will be preserved throughout the lease sale process. Any on-the-ground activities will require additional NEPA analysis. At that time, the BLM will determine which baseline studies will be necessary.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	2	Government to Government Consultation	BLM has not adequately considered NVN's input in the draft EIS and has not provided sufficient opportunity for us to provide meaningful input on the draft EIS. In our scoping comments, NVN made clear that it would like to play an active role in the decision-making process and in the management of the region's natural resources. Rather than engage meaningfully, BLM has rushed this process through without effectively considering our feedback and concerns. BLM must take steps to more meaningfully involve NVN and consider our feedback. Steps BLM should take to improve the government-to-government relationship in the EIS process include: · Setting out specifically how the government-to-government consultation and cooperating agency process will occur; · Explaining how BLM will address and respond to NVN's comments and suggestions; · Requiring incorporation of traditional knowledge in decision making; · Sharing information and studies with NVN in a meaningful and accessible way; and · Explaining what happens if NVN and BLM disagree on a proposal, finding, or decision. BLM has not done taken these steps.	The BLM has sent consultation guidelines to Native Village of Nuiqsut to create a more effective government-to-government consultation process. The BLM responds to Native Village of Nuiqsut's comments through the public review process (such as this appendix) and also through requests made during consultation. Traditional knowledge was incorporated into the NPR-A IAP/EIS analysis and is outlined in Appendix C. Studies conducted by permittees as part of the BLM permitting process are posted on the North Slope Science Initiative's Nuiqsut Environmental Information Portal.
Henry	Lupita	Point Lay	27301	4	Government to Government Consultation	So you have no input from tribal government besides ICAS?	The BLM conducted government-to-government consultations with several tribal governments throughout the IAP/EIS process. See Appendix C for a complete list.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Henry	Lupita	Point Lay	27301	12	Government to Government Consultation	The laws were not followed under ANCSA, and BLM really needs to look at those laws and really take into account what those laws really are and come back to this tribal government-to-government meeting with the leadership so that we can move forward.	Consultation on the IAP/EIS development was offered to tribes that may be substantially affected.
Patkotak	Blair	Wainwright	29323	2	Government to Government Consultation	We have a trilateral committee. You probably heard about it. It's with the city of Wainwright. And the (indiscernible) corporation. I think that would be a good time to have a call-in with us and talk more about where we think we could have a deferral on some parts of the land that we own, because I'm looking at your -- the potential. We're in the low potential area. So thinking ahead, you know, seeing that caribou herd is kind of stagnant from what I heard the last time I had a conversation with the Fish and Wildlife. They're not really growing, they're not really decreasing. They're just kind of stagnant. Thinking about that, I wouldn't mind having that area kind of taken care of for a long while yet.	The BLM has reached out to consult with the Wainwright Steering Committee about the Final IAP/EIS.

Z.3.21 Landownership and Use

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	217	Landownership and Use	The land within the external boundaries of the Reserve is mostly federal public land owned by all Americans for our common use and benefit and administered by BLM under the NPRPA. There are also approximately 476,000 acres of Native lands within the boundaries of the Reserve, including 202,000 acres of Native Corporation lands and 29,000 acres of Alaska Native allotments and corporation land.1122 BLM's analysis of the impacts of oil and gas development under the IAP on these lands, including Native allotments, is deficient. Many allotments support subsistence activities and uses. Oil and gas development near these lands is likely to interfere with subsistence activities and other uses. BLM has also not proposed specific measures to protect allotments and other non-federal lands, such as specific buffers or seasonal restrictions. It is also unclear from BLM's analysis how or if NSO stipulations would apply to protect Alaska Native allotments or other non-federal land. Even where NSO stipulations apply, the stipulations only prohibit permanent infrastructure and may be subject to exceptions. 1122 1 DEIS at 3-210, 3-213.	The subsistence analysis in the IAP/EIS considers impacts of oil and gas development near Native land and Native allotments. Specific protections in place to protect Native land include Stipulations K-15 and K-17. The Final IAP/EIS has been updated to clarify the applicability of NSO stipulations to avoid or mitigate potential impacts on Native allotments and non-federal lands, specifically from exploration activities.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	10	Landownership and Use	Native Land Within & Adjacent to NPR-A In the past, there have been issues with BLM's decisions to enact special areas which are not in place on nearby or adjacent Native land. BLM must work with ASRC and other the adjacent village corporation land owners in a spirit of co-management when considering restrictions on federal land which may impact Alaska Native landowners before the final EIS is published. ASRC is concerned about the impacts of K-7, "Protection of Goose Molting Lakes" and creating connectivity hurdles to ASRC lands at Cape Halkett. This directly devalues our lands creating a blockage of access to/from our lands for development or support opportunities. Devaluing our lands with resource potential in this manner could have significant negative financial impacts on ASRC and our approximate 13,000 shareholders, as well as Alaska Natives statewide through loss of potential 7(i) distributions from those lands.	The ROPs and Stipulations outlined in the IAP/EIS do not apply to private land within the NPR-A and do not preclude development on private land. Single season ice infrastructure can be permitted anywhere in the NPR-A and provides an avenue for ASRC lands at Cape Halkett to support development in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	11	Landownership and Use	With respect to K-17, "Federal Mineral Estate Under Native Lands", and specifically Atqasuk Corporation and Ukpeagvik Iñupiat Corporation, ASRC expects that the decision to lease or not lease the federal mineral estate under native lands within NRP-A to be decided by the Native surface owner. If there was any question at this time, these federal mineral estate lands should be put into a deferral status for five years. This would allow for the flexibility to adapt to future unknown scenarios that could bring desirable outcomes to local villages. An enormous benefit to the communities of the North Slope is the possibly of being powered by natural gas, as is Nuiqsut and Utqiagvik. K-17, as written for Alternatives B and C creates another barrier to pathways to empower Alaska Native self-determination on a local village level.	Stipulation K-17 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	13	Landownership and Use	Lease Deferral Around Nuiqsut ASRC recognizes that Nuiqsut is the most impacted community and that the development rate around the village has been fast paced. For this reason ASRC supports a lease deferral area around Nuiqsut (K-16), but would recommend a five year deferral and review period. A five year deferral would allow for flexibility to adapt to future activities that may have possible local benefits. This helps to empower the community with the ability to be flexible and adaptable related to things happening round them. This five year deferral area should be incorporated as part of a modified Alternative D. Please see map attached to these comments.	Stipulation K-16 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	14	Landownership and Use	Protection of Allotments and Economic Opportunities ASRC generally agrees with protections provided to allotments as in K-15, “Federal Mineral Estate Under Allotments. : “Permanent oil and gas facilities within 1 mile of native allotments are prohibited, except for essential road and pipeline crossings in areas of overlapping setbacks. Exceptions would be considered in consultation with the owner of the allotment.” We also want BLM to recognize that possible development in an area can create economic opportunities for allotment owners through leasing acreage on an allotment if they so choose. BLM should be careful not to place erroneous restrictions on lands surrounding privately owned allotments that would prevent the utilization of an allotment by industry - if the allotment owner is willing. These opportunities provide an avenue for allotment owners and their families to have long term stable economic benefit.	Stipulation K-15 does not restrict an allotment owner from allowing development on their allotment or within the allotment setback.
Kenning	Erik	ASRC	29299	1	Landownership and Use	As a general comment, BLM should not interfere with activity on Native-owned land or be a blockade to development of Native-owned land. Alaska Native Corporations have the right and responsibility to develop their land to the benefit of their Alaska Native shareholders. As stated in our scoping comments, BLM needs to include co-management with Alaska Native Corporations in their NPRA IAP EIS and create pathways to empower Alaska Native self-determination.	The ROPs, lease stipulations, and land use allocations do not apply on private land. No part of this plan prohibits the development of private land within the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	105	Landownership and Use	Page 3-214 Paragraph 6 Refers to disruption of scientific data collection. These impact statements are misleading and incorrect. Seismic exploration occurs during winter months when very little to no research or scientific data collection occurs. Furthermore, agencies or other entities collecting data would be able to (and do) communicate and collaborate with seismic project planners well before any work is conducted, which mitigates disruptions. BLM should reconsider statements such as these that do not represent reasonable situations (i.e., data collection during winter) or present practices (i.e., open communication and collaboration between agencies, researchers, and seismic - or other industry - operators).	The analysis describes a scenario of multiple activities occurring that could result in conflict. The Final IAP/EIS has been updated to clarify that coordination among exploration groups, researchers, and agency occurs and minimizes the potential for conflict among these groups.
Patkotak	Hugh	Olgoonik Corporation	29297	2	Landownership and Use	Access to Native Allotments should be protected through easement or other means.	ANILCA Section 811 and Title XI ensures access to inholdings, including Native allotments.
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	2	Landownership and Use	Co-management The NPR-A IAP EIS should include a framework for co-management between federal agencies and adjacent Native landowners. Four separate village corporations - Atqasuk Corporation, Olgoonik Corporation, Ukpeagvik Iñupiat Corporation, and Kuukpik Corporation - collectively own over 400,000 acres of land in the NPR-A. Per the Alaska Native Claims Settlement Act and the Alaska National Interest Lands Conservation Act, Alaska Native Corporations (ANC's) have the right to develop their lands to provide economic benefits to their shareholders. The	In development of the Final IAP/EIS, the BLM consulted with ANCSA Corporations and has reached out to consult directly with the Atqasuk Corporation. When the BLM receives development proposals that may affect the community, it will offer additional Native consultation. In developing the IAP/EIS, the BLM takes into account state and local planning and zoning policies. One purpose of the new IAP/EIS is to address community needs and ensure the new IAP/EIS does not preclude community development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	2 *(cont.)*	*(see above)*	BLM and other federal agencies have a responsibility not to hinder the pursuit of that goal through burdensome restrictions on federally owned land that would affect nearby Native landowners. Creating co-management opportunities between ANC's and the federal agencies in charge of managing federal land would streamline management decisions in the NPR-A, and provide another critical opportunity for Native self-determination. In particular, the BLM is the subsurface owner of lands owned by Atqasuk Corporation, and the BLM should make every effort to understand the goals of Atqasuk Corporation and work with them throughout this process. While currently most development is concentrated around Nuiqsut, in the recent lease sale, North Slope Exploration bought lease tracts very close to the community of Atqasuk. The BLM should work with Atqasuk Corporation to develop a Memorandum of Understanding regarding the relationship between the agency and the Corporation as the respective subsurface and surface owner of the land. This MOU should clarify Atqasuk Corporation's goals as they relate to oil and gas development and how the BLM can collaborate with the Corporation to achieve such goals. As we have seen elsewhere on the North Slope, development close to communities has allowed for natural gas and other benefits to nearby villages. The BLM should explore and plan for these opportunities in advance of any potential development.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	7	Landownership and Use	Native Allotments BLM should likewise respect the jurisdiction of local allotment holders of their private land. The agency should endeavor to keep the option open for local landowners to choose to allow industry infrastructure on their property as a means of economic opportunity. The BLM must be careful not to create burdensome restrictions around privately-owned lands that would prevent an allotment-holder from choosing to lease acreage to industry if they so decide. VOICE recommends that the BLM remove the NSO requirement from Lease Stipulation K-15, though we generally agree with the Requirement as stated under Alternative D: Permanent oil and gas facilities within one mile of native allotments are prohibited, except for essential road and pipeline crossings in areas of overlapping setbacks. Exceptions would be considered in consultation with the owner of the allotment.	Under all action alternatives, Stipulation K-15 allows development to occur within the stated setback with the concurrence of the allotment owner.
MacRae	Steve	Wainwright	29326	2	Landownership and Use	Blair asked me to point out the Olgoonik Corporation apparently has some piece of property along the Coleville. I don't know if that's been recorded or not or if your map is too large a scale to show it. But I just wanted to stick a pin in that and make sure that you were aware of it.	The BLM is aware of Olgoonik lands on the south side of the Colville River in Umiat Meridian T4SR11W and T4SR12W. The BLM has incorporated this information in the Final IAP/EIS, as appropriate.

Z.3.22 Marine Mammals

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	52	Marine Mammals	The draft EIS fails to discuss how BLM will ensure compliance with the MMPA.291 In our scoping letter, Groups identified the need for BLM to ensure that the leasing program meets the agency's obligations under the MMPA as a key issue to address.292 Similar to the ESA, jurisdiction of the MMPA is shared by NMFS and the FWS (generically, "the Service"). For marine mammal resources relevant to the Reserve, FWS has jurisdiction over polar bears and walrus while NMFS has jurisdiction over seals, porpoises, and whales. We note that the discussion of all species protected by the MMPA is buried in Appendix S, making it difficult to reference while reviewing the DEIS. Marine species subject to BLM's NEPA review should be included in the text of the NEPA analysis in the draft EIS. ----------- 291 16 U.S.C. §§ 1361-1389. 292 Scoping Comment Letter at 17-18.	The fourth bullet under Analysis Assumptions for Direct and Indirect impacts in Section 3.3.6 states that procedures under the Marine Mammal Protection Act Incidental Take Request authorization process and Endangered Species Act Section 7 consultations for threatened and endangered species will be followed. These are the procedures used to comply with the requirements of the MMPA. Text has been added to specify that compliance must be documented with Letters of Authorization, Incidental Harassment Authorizations, and/or correspondence with the relevant agency (USFWS or NMFS), confirming that take authorization is not warranted.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	186	Marine Mammals	The DEIS omits important information about Southern Beaufort Sea (SBS) and Chukchi/Bering Seas (CBS) bears, including the current Potential Biological Removal level calculated by FWS and the total current mortality of bears from both populations. It contains incomplete information about the extent of suitable maternal denning habitat in the NPR-A and fails to estimate the number of denning bears that may be expected in a given season. It also omits information regarding the nature of the increasing use of terrestrial habitats by polar bears, and neglects to mention the FWS's Polar Bear Conservation Management Plan or analyze any alternative with respect to its tendency to promote or undermine polar bear recovery.	Specific references to Potential Biological Removal (PBR) for bears from the SBS and CBS stock were added to the Affected Environment, Polar Bears section. Total mortality for either population is challenging to quantify because survival rates vary by age, sex, and year. Sources for detailed information on survival estimates are referenced in the text (Regehr et al. 2010, 2018; Bromaghin et al. 2015). Suitable maternal denning habitat is identified on Map 3-27 and is described in Section 3.3.6. In Section 3.3.6 there is information provided on the increasing use of terrestrial habitats by polar bears and changes in terrestrial distribution. The USFWS has no reliable estimate of the number of polar bear dens in the NPRA. The terrestrial dens that have been found in the NPRA are presented on Map 3-27. These dens could be used in a calculation to extrapolate the number of dens in the terrestrial denning unit within the NPRA; however, it would be a number without an estimate of accuracy and of limited use for making any statements about effects that are different than those currently stated. The Polar Bear Conservation Management Plan is cited throughout the polar bear sections, including in the section on Injury and Mortality (Section 3.3.6). Text was edited to mention the plan explicitly.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	208	Marine Mammals	In the most recent stock assessment report for bowhead whales, NOAA specifically includes oil and gas development in the arctic as a habitat concern due to various forms of pollution including oil spills, seismic surveys, increased shipping, offshore exploration, development, and production.1101 BLM fails to include this critical and relevant information: Bowhead whales often avoid sound sources associated with active drilling (Schick and Urban 2000) and seismic operations (Miller et al. 1999). Studies in the 1980s indicated that bowhead whales reacting to seismic activity in feeding areas appeared to recover from behavioral changes within 30-60 minutes following the end of the activity (Richardson et al. 1986, Ljungblad et al. 1988). However, monitoring studies of 3-D seismic exploration in the ------ 1099 Kelly et al., Responses of Ringed Seals to Noise Disturbance (1988). 1100 Kelly et al., Ringed Seal Winter Ecology and Effects of Noise Disturbance at ii (1986). 1101 NAT'L OCEANIC & ATMOSPHERIC ADMIN., BOWHEAD WHALE NOAA STOCK ASSESSMENT (2018). ------ nearshore Beaufort Sea during 1996-1998 demonstrated that nearly all fall-migrating bowhead whales avoided an area within 20 km of an active seismic source (Richardson et al. 1999). Furthermore, the studies also suggested that the bowhead whales' offshore displacement may have begun roughly 35 km (19 nautical miles or 22 statute miles) east of the activity and may have persisted more than 30 km to the west (Richardson et	The proposed action presented in the IAP/EIS focuses on a management plan for terrestrial oil and gas development. Analysis of the effects of in-water seismic activity is beyond the scope of this plan and IAP/EIS. Additionally, seismic exploration will occur in winter over ice and snow, whereas bowhead whales are in the area during the open-water season.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	208 *(cont.)*	*(see above)*	al. 1999). In a controlled experiment, Richardson et al. (1986) observed that some feeding bowhead whales started to turn away from a 30- airgun array with a source level of 248 dB re 1 μPa at a distance of 7.5 km (4.7 mi) and swam away when the vessel was within about 2 km (1.2 mi).1102 1102 Id.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	188	Marine Mammals	Additionally, the DEIS omits a key observation from Rode 2015a, that most bears studied thus far that spend more time on land (apart from bears seeking to feed at whale bone piles) are adopting energy conservation strategies while on land, primarily resting.1018 While there had been speculation that polar bears may be able to offset foregone foraging opportunities caused by sea ice loss, Rode indicates that terrestrial foraging opportunities are generally very minimal and unlikely to provide an adequate alternative. Thus, while spending increased time on land out of necessity, bears have thus far spent most of that time trying to rest and conserve energy, as foraging is likely not worth the energy expenditure.	Bears in the Chukchi Sea subpopulation exhibit low activity, consistent with minimal feeding, but bears in the Southern Beaufort Sea exhibit high activity, associated with feeding on subsistence-harvested whale carcasses. The Final IAP/EIS has been updated to include these contrasting observations about the energetic consequences of polar bears spending more time on land.
Donahey	Leah	Alaska Wilderness League	29320	210	Marine Mammals	BLM neglects to include any information regarding noise disturbance to walrus.	The Final IAP/EIS was updated to include thresholds for noise disturbance to Pacific walruses.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	53	Marine Mammals	The DEIS states in its list of assumptions regarding impacts to marine mammals that "[p]rocedures required under the MMPA ITR authorization process and an ESA section 7 consultation for threatened and endangered species would be followed."302 However, BLM relies on future ITR protections for marine mammals without articulating what specific measures would be necessary or effective or explaining at what stage of oil and gas activities it assumes which ITR protections would be required.	All projects proposed in the NPR-A will be subject to consultation requirements under the ESA and compliance with the MMPA. During that consultation, additional mitigation measures may be required to protect sensitive species.
Donahey	Leah	Alaska Wilderness League	29320	50	Marine Mammals	BLM also recognizes that several species of marine mammals present in or adjacent to the program area are protected under the ESA, such as polar bear, bowhead whales, and bearded and ringed seals.288 BLM does not, however, acknowledge its obligations to consult under the ESA for these species, and instead repeatedly points to the Marine Mammal Protection Act (MMPA) as the sole source for mitigation measures and procedural protections for these ESA listed species. BLM must engage in consultation for all these species and BLM must explain what activities will be considered as part of that consultation process. ---------- 288 See 2 DEIS app'x S at R14-15 to R-15.	To comply with Section 7 of the ESA, the BLM began consulting with the USFWS and NMFS early in the IAP/EIS process. The BLM is consulting with the USFWS and NMFS to identify ESA issues and support development of their biological opinions. All operators will be subject to regulations and stipulations under the ESA and MMPA.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	193	Marine Mammals	In order to avoid disturbing dens and to protect denning habitat, BLM should prohibit all industrial activity and all permanent infrastructure in designated critical polar bear denning habitat. At minimum, BLM should clarify that seismic activity, winter road construction, blasting, and anything else that may disturb denning bears will be prohibited in polar bear denning habitat, or may be subject to restrictions that could render the activity impossible in any given season.	The 1-mile coastal setback is appropriate for this programmatic level document. The setbacks alternatives were developed by the BLM and cooperating agencies, in part to minimize impacts on wildlife. Any future development will include site-specific NEPA and ESA Section 7 consultations, which may incorporate additional protective measures for threatened and endangered species and their habitat, as appropriate. Lessees are notified of this requirement in Lease Notice 2.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	194	Marine Mammals	The International Arctic Research Center at the University of Alaska Fairbanks reported 2019 sea surface temperature and sea ice anomalies as among the most extreme on record.1035 An early sea ice breakup is expected for 2020.1036 These temperature and sea ice anomalies are a direct function of climate change.1037 All Arctic marine mammals are highly dependent on sea ice and these changes will have profound effects.1038 Allowing for increased oil and gas development in the NPR-A will exacerbate these climate-related threats. These impacts are not thoroughly analyzed in the DEIS. BLM must provide a thorough analysis of the consequences of increased development. --------- 1034 ROP C-1(c), 1 DEIS at 2-12. 1035 Int'l Arctic Research Ctr., Univ. of Alaska Fairbanks, Alaska's Changing Environment, https://uaf-iarc.org/our-work/alaskas-changing-environment (last visited Jan. 6, 2020). 1036 Id. 1037 Id. 1038 Moore, Sue E., and Henry P. Huntington. 2008. “Arctic Marine Mammals and Climate Change: Impacts and Resilience.” Ecological Applications 18(sp2): S157-65.	The ongoing and anticipated effects of climate change on Arctic marine mammals are discussed in the species-specific sections (where Moore and Huntington 2008 is cited) and in the climate change section in Section 3.3.6. The impacts of greenhouse gas emissions from future oil and gas development in the NPR-A on climate change are addressed in Section 3.2.1, Climate and Meteorology.
Donahey	Leah	Alaska Wilderness League	29320	199	Marine Mammals	The DEIS needs to more specifically examine the likelihood and adverse consequences of oil spills to polar bears, especially given their use of both terrestrial and marine habitats within the NPR-A.	The likelihood and consequences of oil spills and releases of contaminants is addressed in Section 3.3.6, Injury and Mortality, Polar Bear.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	202	Marine Mammals	Cetaceans, including beluga and bowhead whales are long-lived, K-species, meaning that, similar to humans, individuals have long life spans, birth few calves, and devote significant resources to raising those low numbers of offspring. K-species are ill equipped to quickly adapt to a rapidly changing arctic climate.1063 BLM states ecosystem changes as a documented concern for belugas: "Recent evidence for declining growth, body condition, and blubber thickness suggests that ecosystem changes may be affecting belugas through reduced availability or quality of prey, primarily ice-associated arctic cod."1064 BLM also states that reduced sea ice increases threats of predation on belugas by killer whales.1065 BLM notes that belugas exhibit a deeper maximum diving depth than orcas when diving for prey,1066 but that would not negate the additive predation threat because belugas necessarily spend considerable time moving to and from the surface to breathe. Elsewhere, BLM also suggest that belugas might be resilient to climate change due to the variability of their diet and behaviors.1067 These claims must be considered with Harwood et al. 2014, 2015 and other research about the differences in the quality of prey belugas might switch to in the case of decreased availability of high-quality ice- associated prey species. ------ 1060 Endangered and Threatened Species; Threatened Status for the Beringia and Okhotsk Distinct Population Segments of the Erignathus Barbatus Nauticus Subspecies of the Bearded Seal,	Section 3.3.6 of the IAP/EIS references the Harwood papers and possible future prey species.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	202 *(cont.)*	*(see above)*	77 Fed. Reg. 76740 (Dec. 28, 2012) (final rule listing the Beringia and Okhotsk DPSs of Bearded Seals Under the ESA). 1061 1 DEIS at 3-189. 1062 77 Fed. Reg. at 76758. 1063 Moore, Sue E., and Henry P. Huntington. 2008. "Arctic marine mammals and climate change: impacts and resilience." Ecological Applications 18(sp2): S157-65. 1064 1 DEIS at 3-189. 1065 Id. 1066 Id. 1067 Id.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	204	Marine Mammals	The DEIS also states "For all marine mammals, noise generated from pile driving, dredging, screeding, construction, facility, operations, and vessel and air traffic would cause disturbance and perhaps displacement, although the effect would be a short-term behavioral reaction."1088 This is yet another oversimplified, false claim. Different species display a variety of different reactions to anthropogenic noise.1089 Short-term behavioral reactions can have broader consequences, especially if displacement occurs and the animals move away from biological important features.1090 Additionally, marine mammals who do not display immediate behavioral response may still suffer significant, even lethal consequences.1091	The conclusions of the severity of effects of noise are based on extensive analyses conducted by the BLM for the 2012 IAP, by NMFS in 2016 for oil and gas activities in the Arctic, and by BOEM for the Liberty Development and Production Plan in 2018. The analysis of effects compared the consequences of the action alternatives to the existing management plan that currently allows for many of the same noise-generating activities.
Donahey	Leah	Alaska Wilderness League	29320	205	Marine Mammals	Deferring analysis of noise impacts to marine mammals to later processes is inadequate because MMPA authorizations are not necessarily required and section 7 consultations only apply to species listed as threatened or endangered under the ESA. BLM must take its own hard look at the impacts to marine mammals, including noise impacts.	These effects are examined in depth in the 2013 IAP/EIS and the 2016 NMFS EIS, both referenced within the IAP/EIS. All specific project plans will be reviewed by regulatory agencies to ensure compliance with the MMPA.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	216	Marine Mammals	There are no lease stipulations or Required Operating Procedures to protect whales. BLM should add seasonal restrictions on nearshore drilling and seismic operations to avoid the well- documented impacts to bowhead and other whales.	The BLM does not have the authority to regulate offshore activity outside the NPR-A. In order for the BLM to impose measures beyond the boundaries of NPR-A, they must be reasonable and prudent measures required by NMFS or the USFWS through ESA consultation.
Donahey	Leah	Alaska Wilderness League	29320	187	Marine Mammals	The DEIS omits important information about the human harvest of SBS bears, noting only that, from 2006-2015, harvest from the U.S. portion of the SBS stock averaged 19 bears annually.1004 It ignores the harvest from the Canadian portion of the SBS stock, which averaged 14.2 bears annually over the same time period, for a total average harvest of 33.2 bears per year.1005 The Canadian harvest has consisted of 44% female bears.1006 The DEIS also omits important information about human harvest of CBS bears, stating only that during 2010-2014, an average of 29 bears were removed from the U.S. portion of the stock.1007 The stated harvest limit for CBS bears, established by the U.S.-Russia Polar Bear Commission, is 58 bears, comprised of no more than 19 females.1008 Thus, removals from the U.S. portion of the stock alone are almost equal to the (outdated) PBR of 30 bears, and exceed the updated PBR of 23.28 bears. Further, the DEIS ignores human harvest of the Russian portion of the CBS stock when describing its baseline condition. That harvest is illegal and unmonitored,1009 but is believed to have been very high for many years. The exact magnitude of illegal harvest in Russia from the CBS stock in the	Information on harvest levels throughout the range of the SBS and CS stocks of polar bears were added to the section describing the Affected Environment in Section 3.3.6.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	187 *(cont.)*	*(see above)*	past has been unquantified, but reports indicate that as many as 70 to 300 bears per year were taken from the mid-1990s to the mid-2000s.1010 This estimated level of illegal harvest in Russia posed was considered a serious threat to the CBS polar bear stock; subsequent interviews indicated that economic hardship in Russian villages and increased appearances of polar bears in coastal habitats had driven the large quantity of illegal take in Russia. Later interviews suggested that illegal take had dropped to 32 bears annually in 2010-2011, but this estimate is likely biased low because harvest is an illicit activity subject to severe penalties (so there is a disincentive to report).1011 ------ 1004 1 DEIS at 3-181. 1005 2017 SBS SAR at 13. 1006 Id. 1007 1 DEIS at 3-181. 1008 Id.; the Polar Bear Specialist Group, however, indicates that the limit was increased to 85 bears in 2018. See IUCN/SSC Polar Bear Specialist Group, Chukchi Sea, http://pbsg.npolar.no/en/status/populations/chukchi-sea.html (last visited Jan. 6, 2020) [hereinafter PBSG 2019]. 1009 PBSG 2019. 1010 2017 CBS SAR at 15-16. 1011 Id. at 16.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	197	Marine Mammals	BLM acknowledges Arctic cetacean and pinniped species' dependence on ice but fails to consider how climate change will threaten whales, ice seals, and walrus. Bearded seals rely on sea ice for breeding, feeding, giving birth, molting, and other essential life functions.1053 Ringed seals excavate subnivean lairs in snowdrifts over breathing holes, which they use for resting, giving birth, and nursing pups.1054 Without sufficient sea ice and snow cover, ringed seals can freeze to death or can be eaten by predators.1055 Studies have documented a nearly 100 percent mortality rate when snow cover was insufficient to build snow caves.1056 Other studies document that loss of sea ice is also leading to poor body condition in ringed seals. For example, ringed seals in the Beaufort Sea experienced a significant decline in body condition over the last two decades, as well as low pup production in recent years (2012, 2013, 2014), which could have far-reaching negative consequences in the Beaufort Sea ecosystem.1057 MacIntyre et al. (2015) found that "losses in ice cover may negatively impact bearded seals, not just by loss of habitat but also by altering the behavioral ecology" of the population in the Beaufort Sea region.1058 NOAA Fisheries states bearded seals would need to adapt to suboptimal terrestrial habitats which increase the risk of disturbance and mortality during whelping.1059 Climate change related stress is increasing for ice seals, and already having negative effects on populations. --------- 1053 Endangered	The ongoing and anticipated effects of climate change on Arctic marine mammals are discussed in the species-specific sections and in the climate change section in Section 3.3.6. Topics covered include changes to the extent and duration of sea ice, ocean acidification, effects on walruses, beluga whales, bowhead whales, ringed seals, bearded seals, and polar bears. Text was added to reference Harwood et al. 2015 and address changes in behavior of bearded seals, referencing MacIntyre et al. 2015. The table has been corrected to indicate that the Beringia and Okhotsk DPS of bearded seals is considered depleted under the MMPA. The final rule does state that "In the Bering Sea, early springtime sea ice habitat for bearded seal whelping should be sufficient in most years through 2050 and out to the second half of the 21st century, when the average ice extent in April is forecasted to be approximately 50 percent of the present-day extent" (https://www.federalregister.gov/d/2012-31068/p-48). The impacts of greenhouse gas emissions from future oil and gas development in the NPR-A on climate change are addressed in Section 3.2.1, Climate and Meteorology.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	197 *(cont.)*	*(see above)*	and Threatened Species; Threatened Status for the Beringia and Okhotsk Distinct Population Segments of the Erignathus Barbatus Nauticus Subspecies of the Bearded Seal, 77 Fed. Reg. 76,740, 76,742 (Dec. 28, 2012) (final rule listing bearded seals as threatened under the ESA). 1054 Endangered and Threatened Species; Threatened Status for the Arctic, Okhotsk, and Baltic Subspecies of the Ringed Seal and Endangered Status for the Ladoga Subspecies of the Ringed Seal, 77 Fed. Reg. 76,706, 76,709 (Dec. 28, 2012) (final rule listing Arctic ringed seals as threatened under the ESA). 1055 Id. 1056 Id. 1057 Harwood, L.A. et al. 2015. “Change in the Beaufort Sea Ecosystem: Diverging Trends in Body Condition and/or Production in Five Marine Vertebrate Species.” Progress in Oceanography 136: 26373. 1058 K. MacIntyre, The relationship between sea ice concentration and the spatio-temporal distribution of vocalizing bearded seals (Erignathus barbatus) in the Bering, Chukchi, and Beaufort Seas from 2008 to 2011, 136 Progress in Oceanography 241 (2015). 1059 NAT'L OCEANIC & ATMOSPHERIC ADMIN., BEARDED SEAL NOAA STOCK ASSESSMENT REPORT (2018). --------- Additionally, the DEIS presents incorrect and contradictory information regarding the Beringia DPS of bearded seal. The Beringia DPS is listed under the ESA as threatened and under the MMPA as depleted.1060 BLM claims that: NMFS (Federal Register 2012) concluded that the Beringia distinct population segments of bearded seals is under no	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	197 *(cont.)*	*(see above)*	present threat from climate change, but future changes in sea ice could present an increasing threat leading to the extinction of the Beringia bearded seal distinct population segments by 2095.1061 The cited NMFS final rule listing the Beringia DPS of bearded seals as threatened actually states that "[b]ased on the best available scientific data, we have concluded that it is highly likely that sea ice will decrease substantially within the range of the Beringia DPS in the foreseeable future, particularly in the Bering Sea." This creates a "decoupling of sea ice resting areas from benthic foraging areas, decreases in sea ice habitat suitable for molting and pup maturation, and decreases in prey density and/or availability due to changes in ocean temperature and ice cover."1062 So it is not that future changes in sea ice could present an increasing threat of extinction, but that those changes are highly likely to do so. The DEIS fails to address how the revisions to the IAP, allowing for more oil and gas development and thus more GHG pollution, will exacerbate these climate change related threats.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	200	Marine Mammals	Oil spills can harm marine mammals by reducing their prey. BLM fails to examine the negative impacts of oil at an ecosystem level as well as short- and long-term impacts to marine mammals such as polar bears, whales, and seals.	The likelihood and consequences of oil spills and releases of contaminants are addressed in Section 3.3.6.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	189	Marine Mammals	FWS finalized its "Polar Bear Conservation Management Plan" ("Plan") on December 20, 2016. Designed to comply with both the MMPA and ESA recovery plan requirements, the Plan establishes recovery criteria and key actions designed to ultimately recover this threatened species. The Plan states that the single most important action for conservation and recovery of polar bears is a prompt and aggressive global reduction in the emission of greenhouse gases contributing to Arctic warming.1019 While FWS could not itself achieve this reduction, it identified several actions it would take to promote it, including one to develop and deliver a communication strategy that articulates the consequences to polar bears and their habitat of the likely effects of the current baseline GHG emissions scenario compared to one that reflects an aggressive approach to curtailing emissions worldwide. The strategy will also communicate the effects of climate change on coastal Arctic peoples who derive cultural and nutritional benefit from polar bears. The ultimate goal of our communication effort is to prompt the needed actions to maintain and, as needed, restore, sea-ice habitat by implementing sufficient regulatory, market-driven, and voluntary actions at global and national scales to address the anthropogenic causes of Arctic warming and abate the threat to polar bears posed by sea-ice loss.1020 The DEIS mentions no such communication effort, nor anything that FWS, BLM or any other federal agency is doing to reduce GHG emissions, or	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. Protections for polar bears and polar bear habitat are outlined in ROP C-1 and Stipulation K-5.

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(see above)	*(see above)*	*(see above)*	*(see above)*	189 *(cont.)*	*(see above)*	inspire others to do so. The United States has announced its intention to withdraw from the Paris Climate Agreement. It is safe to say that a solution to polar bear conservation based on reductions in global GHG emissions does not appear likely anytime soon. This places a premium on strategies that help the polar bear survive for as long as possible, until global GHG emissions can be reduced and sea ice loss can be reduced and previous conditions ultimately restored to the extent possible.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	190	Marine Mammals	The increasing oil and gas activities in the NPR-A and increasing polar bear use of terrestrial habitat in northern Alaska, including the NPR-A, have led to greater scrutiny of the impacts of industrialization, especially on denning bears. The DEIS must disclose that the substantial existing and planned oil and gas activities in northern Alaska do indeed threaten polar bears with population-level impacts.	The existing and planned oil and gas activities are presented in Appendix B of the IAP/EIS. Population-level impacts are determinations made by the USFWS as part of the formal Section 7 consultation process.
Donahey	Leah	Alaska Wilderness League	29320	198	Marine Mammals	Any spill that contacts marine mammals directly or indirectly through the marine environment can be expected to have an adverse impact. BLM does briefly acknowledge that large to medium spills could occur1068 and that climate change could increase the future threats of spills.1069 Despite admitting the increased possibility, BLM downplays the likelihood of spills and the known significant impacts of oil spills to marine mammals, stating that [i]n the unlikely event of a large oil spill reaching open water during summer or fall, bearded, ringed, and spotted seals and beluga whales could be negatively affected. The probability, volume, and	The likelihood and consequences of oil spills and releases of contaminants are addressed in Section 3.3.6. In that discussion, the differences in consequences of spills on land and in water are discussed separately for polar bears, pinnipeds, and whales.

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(see above)	*(see above)*	*(see above)*	*(see above)*	198 *(cont.)*	*(see above)*	potential spread of different types of spills are discussed in Section 3.2.11. That section contains no such discussion, however. Furthermore, the DEIS also does not explore the efficacy of oil spill cleanup methods, and does not discuss difference between spills in the terrestrial and marine environments as well as terms cleanup operations or likelihood of success. There are no proven methods to clean up oil on ice.1070 Efforts to rehabilitate animals after exposure to oil are largely ineffective.1071 BLM must disclose the likely impacts to marine mammals in the event of reasonably foreseeable oil spills, large or small and BLM must take a hard look at all the foreseeable impacts from oil spills. ------ 1068 1 DEIS 3-146. 1069 2 DEIS at I-2. 1070 Andy Rowell, Coast Guard Makes Dire Warning About Drilling in the Arctic, ECOWATeshekpuk Caribou Herd, July 20, 2017, https://www.ecowatch.com/coast-guard-arctic-oil-spill-2462465383.html. 1071 Andrew Nikiforuk, Why We Pretend to Clean Up Oil Spills, SMITHSONIAN, July 12, 2016, https://www.smithsonianmag.com/science-nature/oil-spill-cleanup-illusion-180959783.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	206	Marine Mammals	Recent research has elucidated disturbance thresholds with respect to bowhead whales, beluga whales, and harbor porpoise. Bowhead whales increase call rates at initial detection of airguns at 94 dB, then decrease after 127 dB, and stop calling above 160 dB.1092 Beluga whales are displaced from foraging areas beyond the 130 dB isopleth1093 Harbor porpoise buzz rates, a proxy for foraging success, decrease 15 percent with exposure to seismic airguns at 130 dB and above.1094 BLM must present the likely project noise levels and incorporate the best available science to assess the impacts of project noise together with existing and reasonably foreseeable noise sources. That science includes recent research determining that whales such as bowhead and beluga are disturbed at lower levels than previously thought.	The proposed actions presented in the IAP/EIS focus on a management plan for terrestrial oil and gas development. Analysis of the effects of in-water seismic activity is beyond the scope of this plan and IAP/EIS.

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Donahey	Leah	Alaska Wilderness League	29320	191	Marine Mammals	Notably, the one-mile buffer area required for known dens (i.e., dens actually located in surveys done prior to industry activity in a given season) has not been shown to protect denning bears from disturbance from seismic vehicles or other heavy equipment. Studies noted in the DEIS show a variety of responses by denning and non-denning bears to a variety of noise and stimuli from industrial activities,1026 but none indicate that a one-mile buffer will protect denning bears from noise disturbance from seismic exploration or other noisy winter operations. If anything, the available information suggests that the buffer will not do so: a Haaglund tracked vehicle, commonly used in oil and gas activities on the north slope, was found to produce noise detectable in bear dens 1.24 miles away.1027 So even compliance with the proposed one-mile buffer around known dens may not ensure against disturbing those known dens.	The 1-mile buffer is specified in the Incidental Take Regulations for the Beaufort Sea, issued by the USFWS and in effect for 2016–2021. The USFWS determined in the Biological Opinion that the ITRs (including the 1-mile buffer) are not likely to adversely affect polar bear critical habitat or jeopardize the continued existence of polar bears.

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Donahey	Leah	Alaska Wilderness League	29320	196	Marine Mammals	The DEIS is explicit in stating “changes in demography, distribution, habitat use, and behavior of polar bears are attributable primarily to loss of sea-ice habitat as a result of climate warming,” and that the Southern Beaufort Sea stock has the highest vulnerability to the effects of climate change.1051 The DEIS also fully acknowledges increased use of terrestrial habitats and that the NPR-A provides a tremendous amount of polar bear maternal denning habitat for the imperiled bears.1052 Despite BLM reporting these effects of climate change on imperiled polar bears, BLM does not discuss how the direct, indirect, and cumulative impacts of allowing more leasing in the NPR-A will affect the likelihood of sea ice loss stabilization and the established recovery thresholds. Rather, the DEIS claims that all alternatives are expected to have similar impacts. The DEIS otherwise fails to adequately consider the high probability of the extirpation of the SBS polar bear population without significant reductions in GHG pollution to stem sea ice loss. BLM ignores its conservation responsibility by proposing to lease areas neighboring - or in - mapped polar bear maternal denning habitat. As explained above, increased oil and gas development will increase GHG pollution, thereby increasing the primary threat to polar bears and frustrating, if not preventing, recovery. BLM fails to state this undisputed reality and how the alternatives offered, in addition to existing, proposed, and recent projects can be consistent with the recovery of polar bears. --------- 1051 1 DEIS at 3-189 to -190. 1052 Id. & Map 3-25.	In the analysis of direct and indirect impacts, the BLM acknowledges that the potential actions and environmental consequences would be common to all alternatives, but the extent of activities allowed and the areas affected would differ under each alternative. Differences in the degree of impacts between each alternative and Alternative A (No Action) are listed quantitatively in Section 3.3.6 and Table 3-30. The ongoing and anticipated effects of climate change on Arctic marine mammals are discussed in the species-specific sections and in the climate change section in Section 3.3.6. The impacts of greenhouse gas emissions from future oil and gas development in the NPR-A on climate change are addressed in Section 3.2.1, Climate and Meteorology.

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Donahey	Leah	Alaska Wilderness League	29320	201	Marine Mammals	BLM must examine both the short-term and long-term harm oil spills can have on marine mammal populations both near the NPR-A and along the vessel and barge supply route.	The likelihood and consequences of oil spills and releases of contaminants are addressed in Section 3.3.6. In that discussion, the differences in consequences of spills on land and in water are discussed separately for polar bears, pinnipeds, and whales.
Donahey	Leah	Alaska Wilderness League	29320	203	Marine Mammals	The DEIS includes the frequency groups to which cetacean species belong and some information about auditory bandwidth, but the DEIS fails to include any information regarding the effects of noise to marine mammals as well as the most recent science. A 2019 publication by Southall et al. evaluates criteria from Southall et al. 2007, which BLM relies on, and finds that in light of subsequent scientific findings revisions to noise exposure criteria to predict auditory effects in marine mammals are required.	References to Southall et al. 2019 were included in the Final IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	207	Marine Mammals	BLM must take a hard look at the likely noise impacts from the project on pinnipeds and use the best available science regarding acoustic thresholds and behavioral responses to noise in assessing those impacts.	The conclusions of the severity of effects of noise are based on extensive analyses conducted by the BLM for the 2012 Integrated Activity plan, by NMFS in 2016 for oil and gas activities in the Arctic, and by BOEM for the Liberty Development and Production Plan in 2018. The analysis of effects compared the consequences of the action alternatives to the existing management plan, which currently allows for many of the same noise-generating activities.

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Donahey	Leah	Alaska Wilderness League	29320	209	Marine Mammals	As of June 1st, 2019, NOAA Fisheries declared an unusual mortality event (UME) for bearded, ringed, and spotted ice seals in the Bering and Chukchi Seas.1103 This UME is currently ongoing. BLM fails include this information in the DEIS.	The Final IAP/EIS was updated to include the references to the unusual mortality event for ice seals in the Bering and Chukchi Seas.
Donahey	Leah	Alaska Wilderness League	29320	212	Marine Mammals	Regarding seismic activities, BLM should explain why it believes that achieving the referenced standard, 120 decibels re 1 micro Pascal threshold, will avoid disturbance to seals. Regarding protection of basking seals, BLM should change the trigger date from May 1 to April 1 to account for increasingly earlier seal departures from lairs, and should increase the avoidance distance to 1 or 1.5 miles to account for known seal responses to vehicle noise (understanding that those responses vary). Regarding ice paths/roads, BLM should apply the “Alaska North Slope Ice Road and Ice Trail Best Management Practices” document applicable to operations on the North Slope for the construction and maintenance of sea ice roads and trails where water depth is greater than ten feet, which includes more protective measures for seals.1115 1115 Alaska North Slope Ice Road and Ice Trail Best Management Practices (2019).	ROP C-1 has been updated in the Final IAP/EIS.
Nalven	Katy Bear	Anchorage	27915	3	Marine Mammals	BLM has not included any substantial analysis regarding the detrimental effects of oil spills on marine wildlife. With respect to endangered bowheads and other whale species, BLM suggests there will be no significant impacts to individuals or populations of whales. However, these claims are undocumented and arbitrary.	The likelihood and consequences of oil spills and releases of contaminants are addressed in Section 3.3.6. In that discussion, the differences in consequences of spills on land and in water are discussed separately for polar bears, pinnipeds, and whales.

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Nalven	Katy Bear	Anchorage	27915	5	Marine Mammals	BLM acknowledges that walrus are already exhibiting traumatic changes in distribution and response to the ice reduction. However, BLM does not discuss disturbance thresholds of walrus or the possibilities of disturbance causing deadly stampedes.	The Final IAP/EIS was updated to include information on noise disturbance to Pacific walruses in the Impacts Analysis section.
Nalven	Katy Bear	Anchorage	27915	4	Marine Mammals	With respect to ice seals, BLM failed to mention that NOAA has declared, as of June 2019 and still ongoing, that ice seals are in an unusual mortality event in the Bering and Chukchi seas. This includes bearded, ringed, and spotted seals.	The Final IAP/EIS was updated to include the references to the unusual mortality event for ice seals in the Bering and Chukchi Seas.
Nalven	Katy Bear	Anchorage	27915	2	Marine Mammals	This draft is not thorough in its analysis regarding how climate change, ocean acidification, and sea ice loss will impact wildlife, which will only be increased and exacerbated by additional development contemplated in these action alternatives.	Section 3.3.6 discusses the ongoing and anticipated effects of climate change on Arctic marine mammals in the species-specific sections and in the climate change section. Topics covered include changes to the extent and duration of sea ice and ocean acidification and the effects on walruses, beluga whales, bowhead whales, ringed seals, bearded seals, and polar bears.
Lavin	Pat	Defenders Of Wildlife	29308	2	Marine Mammals	The IAP/EIS should make clear BLM's obligation and commitment to take no action that could jeopardize the continued existence of polar bears. It should make clear that all potential development in the NPRA is subject to this standard, and no project will be approved that cannot meet it. It should include a prominent, unmistakable “caveat emptor” announcing that this standard will be difficult to meet, and may be impossible to meet, for projects that would impact polar bears or polar bear habitat.	Lease Notice 2 makes clear that the BLM retains the discretion to ensure compliance with the ESA.

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Lavin	Pat	Defenders Of Wildlife	29308	6	Marine Mammals	leasing is still allowed throughout considerable polar bear critical habitat even in Alternative B, sometimes with an NSO restriction. Even where the restriction applies, it appears unlikely that development could occur without impacting adjacent critical habitat areas, which would be used to access the restricted area. BLM must better explain how polar bears and critical denning habitat would be protected from impacts pursuant to Alternative B or any alternative.	Mitigation measures to minimize disturbance of denning polar bears are specified in the Incidental Take Regulations for the Beaufort Sea, issued by the USFWS and in effect for 2016–2021. The USFWS determined in the Biological Opinion that the ITRs are not likely to adversely affect polar bear critical habitat or jeopardize the continued existence of polar bears.
Wood	Ruth	_	27357	5	Marine Mammals	I recommend that BLM go back to the drawing board to competently consider and analyze the impacts and cumulative impacts from each alternative to the polar bear. This would include identifying dens and denning areas, analyzing how warming temperatures and melting sea ice might impact these denning areas, analyzing how each Alternative will impact these denning areas. Furthermore, the cumulative impact analysis needs to consider full build out of the entire Alaskan Arctic. NPR-A may be huge, but huge acreage throughout the Arctic is being proposed for development. The impacts of full development must be considered, and although I focused on animals above, the impacts of full development on the communities in the NPR-A and those adjacent to it must be analyzed and considered.	Denning habitat and locations of dens are identified in Map 3-27. The quality of terrestrial denning habitat in the NPR-A relies on snowfall and wind drift, both of which are very challenging to predict. The impacts on the denning areas at a programmatic level can best be evaluated by comparing the amount of acreage available by alternative, lease type, and infrastructure allowed. This information is presented in Table 3-30. More quantitative impacts will be evaluated in a project-specific environmental impact statement for future actions. IAP/EISs are required to evaluate the impact of these proposed actions in addition to past, present, and reasonably foreseeable future actions that are described in Appendix B (Reasonably Foreseeable Development Scenario). All of the proposed alternatives have restrictions on the acreages available for development.

Z.3.23 NEPA

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McGuire	Rebecca	Alaska Shorebird Group	27169	13	NEPA	We are concerned that the current definition of the "No Surface Occupancy" (NSO) used to mitigate impacts to wildlife resources and their associated habitats, particularly in the Teshekpuk Lake Special Area in Alternatives C and D, will not preclude all development and surface disturbance in the BLM's management plan for the NPR-A. The current definition of NSO means that an area is open to fluid mineral leasing, but without surface occupancy and surface-disturbing activities associated with fluid mineral leasing.57 Access to leased federal fluid mineral deposits would require directional or horizontal drilling from outside the boundaries of the NSO area. However, surface use stipulations still allow some use and occupancy of the surface (e.g., non-fluid mineral leasing activities). Based on the most current Willow Master Development Plan, other surface disturbances necessary to support oil and gas facilities might be built, including pipelines, roads, mineral extraction sites (e.g., gravel mines), or other necessary infrastructure, including seawater treatment plants, barge landings, and landfills. In addition, the NSO does not apply to community infrastructure that may include roads, power lines, fuel pipelines, and communications systems.58 Thus, we recommend the term NSO be re-defined to transparently account for all surface-disturbing activities, including community infrastructure. The effects from all impacts, whether fluid leasing	The draft IAP/EIS analysis accounts for the different levels of NSO protections in the NPR-A. The description of NSO in Chapter 2 was updated to more clearly explain the different levels of NSO considered in the alternatives.

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(see above)	*(see above)*	*(see above)*	*(see above)*	13 *(cont.)*	*(see above)*	or not (i.e. surface activities), must be evaluated to determine whether the NSO successfully mitigates for impacts in biologically sensitive areas. 57 NPR-A DIAP/EIS, p. 2-2. 58 NPR-A DIAP/EIS, p. 2-3.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	16	NEPA	In the DEIS, BLM identified a handful of issues that it determined were outside the scope of the IAP EIS.134 BLM states that it declined to analyze "[c]omments on issues that do not meet the stated purpose of and need for the IAP/EIS" and "[c]omments about land management actions outside the BLM's jurisdiction."135 BLM provided no further explanation about precisely what issues it declined to address in the DEIS on these grounds and these vague statements are insufficient to show that BLM properly ruled out issues as beyond the scope of the EIS. BLM's decision to define the scope of this EIS to exclude consideration of important statutory obligations related to the protection of surface values and areas in the Reserve raises serious questions about whether BLM also improperly excluded issues from the scope of the EIS. BLM should provide additional information on what issues it excluded from consideration in the EIS.	Issues outside of the IAP/EIS were identified during scoping. They include comments about land management actions outside the BLM's jurisdiction and comments suggesting that the BLM halt onshore and offshore planning and permitting, postpone all timber sales, and stop all work on the Alaska Specific Roadless Rule.

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Donahey	Leah	Alaska Wilderness League	29320	41	NEPA	BLM similarly fails to make it clear what decisions are irreversible or irretrievable at this point in time. BLM instead improperly points to the 2013 IAP instead of making it clear for purposes of this IAP what irretrievable commitments of resources are actually occurring at this stage.228 The draft EIS states that a “detailed description of irreversible or irretrievable commitments of resources from oil and gas development on the North Slope is in Section 4.11 of the NPR-A EIS” and includes a bullet list of types of effects that would be irreversible.229 These are effects of the leasing program as a whole, and fail to distinguish between what becomes irreversible now and what becomes irreversible at later decision points. It is important for the public to understand the effects that are occurring at this stage, as opposed to at the lease sale stage or other subsequent stages, and what BLM is potentially committing to now. It is also important for BLM to clarify how the use of no surface occupancy stipulations impact the agency's interpretation of when there is an irretrievable commitment of resources, if at all.	A detailed description of irreversible and irretrievable commitments of resources from oil and gas developments that could occur from the indirect impacts that would occur post leasing is in Section 4.11 of the 2012 NPR-A IAP/EIS. Section 1.3 of the Final IAP/EIS has been updated to include a description of the oil and gas leasing process.

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Donahey	Leah	Alaska Wilderness League	29320	40	NEPA	Any leases BLM issues in the NPR-A that do not contain a no surface occupancy restriction constitute an irretrievable commitment of resources. If BLM does not include a no surface occupancy provision in the NPR-A leases, BLM is required to conduct a NEPA analysis that considers site-specific impacts prior to the lease sales and cannot rely on a solely programmatic level of analysis. If BLM is unable to conduct a sufficient site-specific analysis for lease sales now or when it issues leases, BLM must retain the authority to prohibit future activities on those parcels by issuing no-surface occupancy leases. We note that BLM does not purport to include no-surface occupancy stipulations or leases in the draft EIS outside of limited areas. BLM should make this process clear in the IAP EIS.	Any non-NSO lease that the BLM issues constitutes an irretrievable commitment of resources, requiring an IAP/EIS level of analysis. The IAP/EIS analyzes site-specific impacts to the extent possible at the leasing stage.

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Donahey	Leah	Alaska Wilderness League	29320	38	NEPA	BLM's statements regarding how it is likely to proceed with subsequent NEPA reviews for the lease sales are contrary to what is required under NEPA, the NPRPA, and BLM's regulations. First, it is unreasonable for BLM to say the NEPA analysis for this IAP is the only NEPA analysis it will likely do at the management-plan level for the next 19 years. BLM may be obligated in the future, at a minimum, to supplement its NEPA analysis for the IAP to take into account new information and changed circumstances and it is highly likely such an analysis will be necessary on a far shorter timeframe than 19 years out. Second, in the oil and gas context, projects and agency review typically follow a tiered process, with NEPA review beginning broad and becoming more site-specific at each later step. As part of the earliest and broadest level of decision-making, BLM develops a broad programmatic-level environmental analysis, such as a land use plan like the IAP.211 BLM next holds lease sales and issues leases for the use of a specific area.212 Third, the lessee may apply for a permit to drill to develop its lease.213 The level of detail required by NEPA at each step varies, and depends on the nature and scope of the proposed action.214 ------------ 211 Pennaco Energy, Inc. v. U.S. Dep't of the Interior, 377 F.3d 1147, 1151 (10th Cir. 2004). 212 New Mexico ex. rel. Richardson v. Bureau of Land Mgmt., 565 F.3d 683, 716 (10th Cir. 2009). 213 Id. 214 California v. Block, 690 F.2d 753, 761 (9th Cir. 1982).	This IAP/EIS considers the impacts of lease sales. If these analyses remain adequate at the time of future lease sales, they can support NEPA. Prior to each lease sale, the BLM will analyze the continuing adequacy of the analyses through a determination of NEPA adequacy (DNA).

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Donahey	Leah	Alaska Wilderness League	29320	39	NEPA	There are multiple lawsuits pending against the BLM related to its failure to prepare any additional NEPA analysis beyond the IAP EIS for recent lease sales in the Reserve.215 First, as the lawsuits explain in detail, the lease sales are in themselves major federal actions subject to NEPA. BLM's regulations for leasing in the Reserve indicate that BLM is required to complete an environmental review under NEPA prior to selecting the specific tracts the agency will offer in a lease sale.216 At a minimum, BLM needs to prepare an EA specific to the individual lease sales. BLM's statement that the IAP is intended to serve as the NEPA analysis for all lease sales through 2039 is insufficient to excuse the agency from needing to conduct NEPA analyses for the lease sales. BLM recognizes the need to analyze if there is significant new information or changes that would require an update to the IAP itself; however, the obligation to update BLM's management plan for the Reserve is distinct from the agency's obligation to prepare a NEPA analysis for individual lease sales, which are in themselves major federal actions subject to NEPA. BLM recognizes in the DEIS that "[a]ctions having no new significant effects could be analyzed in an environmental assessment tiered to an existing EIS, including this IAP/EIS once it is finalized."217 However, the agency then provides itself an out and tries to exempt itself from doing subsequent NEPA reviews for lease sales. This is contrary to NEPA and deprives the public of the ability to weigh in on and understand the impacts related to individual lease sales.	Any non-NSO lease that the BLM issues constitutes an irretrievable commitment of resources, requiring an IAP/EIS level of analysis. The IAP/EIS analyzes site-specific impacts to the extent possible at the leasing stage. The IAP/EIS is intended to serve as the NEPA analysis for adopting changes to the leasing program and for implementation of the leasing program through individual lease sales, consistent with *Northern Alaska Environmental Center v. Kempthorne* (9th Cir., 2006).

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Purtle	Joshua	California Office of the Attorney General	27340	4	NEPA	The Draft Plan and Draft EIS are unlawful because BLM cannot justify additional leasing under the Reserve Act's governing mandate to "assure the maximum protection" of the Reserve's environmental and subsistence values consistent with oil and gas exploration and development. 42 U.S.C. § 6504(a). The Draft EIS further violates NEPA and the APA because it fails to identify BLM's preferred alternative; fails to rationally analyze the impacts of expanded leasing on migratory birds; fails to analyze and disclose the cumulative impacts of new leasing in the Reserve with the impacts of BLM's proposed leasing program in the Arctic National Wildlife Refuge; and fails to fully analyze the Draft Plan's potential climate impacts. BLM must correct these legal defects and circulate a new, lawful Draft EIS for an additional round of public comment. Otherwise, BLM must withdraw the Draft Plan.	The BLM and cooperating agencies designed the alternatives to consider different ways to balance development and conservation.

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Schell	John	ConocoPhillips Alaska	29272	144	NEPA	It is important, however, that BLM better explain its view of how these two processes relate to each other. In our view, the clearest and most prudent approach is to expressly define the scope of the revised IAP/EIS to exclude the Willow MDP, and we recommend this approach to BLM. If, however, BLM takes a different approach, then we recommend that BLM expressly acknowledge in both the final Willow MDP EIS and the final IAP/EIS that the Willow MDP could be approved under either the existing IAP or the revised IAP, and no conflict or inconsistency would result in either case approach, then we recommend that BLM expressly acknowledge in both the final Willow MDP EIS and the final IAP/EIS that the Willow MDP could be approved under either the existing IAP or the revised IAP, and no conflict or inconsistency would result in either case approach, then we recommend that BLM expressly acknowledge in both the final Willow MDP EIS and the final IAP/EIS that the Willow MDP could be approved under either the existing IAP or the revised IAP, and no conflict or inconsistency would result in either case.3 ------------ 3 Despite presenting this alternative, ConocoPhillips wants to be clear that it strongly believes it would be unnecessary and unwise for BLM to switch the Willow MDP to a new IAP when it has been leased, planned, and is currently being permitted under pre-existing IAPs.	The IAP/EIS has been revised to further explain its relationship to subsequent permitting actions for proposals involving leases issued under prior IAPs.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	25	NEPA	the cross-referenced material does not answer the critical questions in this NEPA process because the 2012 EIS analyzed a different slate of alternatives. Reviewing the cross-referenced impacts analysis from 2012 will allow the reader to compare 2012's Alternatives A, B-1, and B-2 to one another, 53 but it will not allow the reader to compare 2019's Alternatives against each other unless a reader can also figure out how 2012's Alternatives compare to those presented here in 2019. That's not nearly good enough to satisfy the requirements of this NEPA process. The upcoming Final EIS should provide the same level of detail comparing today's proposed alternatives that the 2012 EIS provided at a minimum. Stakeholders and decisionmakers need to understand more subtle distinctions between the current alternatives than just the general ranking of least to most impacts that the 2019 Draft EIS provides over and over again. 53 See, e.g., 2012 Final EIS, V.3, p. 43 (“Thus, impacts would likely be less under Alternative B-2 than under Alternative A, given the smaller development scenario that would create less disturbance and affect about 19 percent fewer acres of habitat under long-term disturbance.”). Notice here too how the 2012 Draft quantifies the expected level of impacts, something the 2019 Draft EIS almost never does.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference. The IAP/EIS incorporates by reference the broad overview of potential impacts from the 2012 IAP/EIS, however it does not incorporate by reference any quantitative analysis resulting from the alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
NAVARRETTE	Rikki	Kuukpik Corporation	29284	27	NEPA	The excessive use of cross-references, “incorporation by reference”, and alarmingly simplistic summaries will leave most readers not just under-informed, but misinformed about the true impacts from each alternative.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	17	NEPA	One of the most vexing problems with this Draft EIS is that it doesn't explain why BLM believes that management plan needs to be changed. This deprives the public of any opportunity to consider (or refute) BLM's justifications for any proposed changes. Kuukpik would truly like to see such an explanation prior to the Final EIS and ROD because none of these proposed alternatives look any better than the existing IAP. Because we don't know BLM's reasoning for changing management plans. we can't even comment on whether that reasoning is compelling.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.”
NAVARRETTE	Rikki	Kuukpik Corporation	29284	60	NEPA	The Draft EIS 's reliance on cross-references and summaries deprives readers of key information and context.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Adams	Jim	National Parks Conservation Association	29262	19	NEPA	In addition, it is equally important that BLM take sufficient time to review and digest public input and incorporate it into its thinking. BLM will not have adequate time to review public input, nor will it have time to do new studies or even fully consider existing data on its current schedule. This overly strict timeline limits the chance for multiple-year data collection, surveys, and analyses that have yet to be conducted, but are needed to understand impacts to wildlife populations and habitat, air quality, hydrology, adverse health impacts on local communities, and subsistence impacts necessary to adopt such a broad management plan. Rushing the analysis and public review is not consistent with BLM's obligations under the NPRPA and NEPA.	Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, including time and page limitations for NEPA documents. The IAP/EIS analysis is based on the best available information. NEPA does not require conducting new studies to evaluate impacts.
Meyer	Kennon	Patagonia Works	27179	18	NEPA	Rather than assuming in its DEIS that development will proceed at the pace dictated solely by the market and current operators, the BLM should consider mitigation techniques to defer the development and production phases of oil and gas until such time as global GHGs have leveled or decreased through efforts like the Paris Agreement.	The BLM is not legally allowed to require existing lessees to undertake phased development. Once a lease is sold, the BLM must process permits for development as they are received.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Meyer	Kennon	Patagonia Works	27179	17	NEPA	NEPA also requires consideration of mitigation measures. Council on Environmental Quality ("CEQ") regulations implementing NEPA make clear that in any EIS and ROD, "[a] monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation."102 CEQ regulations also state that "[m]itigation (§1505.2(c)) and other conditions established in the [EIS] or during its review and committed as part of the decision shall be implemented by the lead agency or other appropriate consenting agency."103 To do so, CEQ explains the agency "shall: (a) [i]nclude appropriate conditions in grants, permits or other approvals[.]"104 In this case the BLM has ignored its obligations in this regard, particularly as they relate to GHG emissions. 102 40 C.F.R. § 1505.2. 103 40 C.F.R. § 1505.3. 104 Id.	The ROD will include the monitoring and enforcement program. The IAP/EIS analysis accounts for the estimated incremental amount of oil and gas burned on a global scale and the resulting estimates of GHG emissions. Because the increase is small in a global context, the proposed action, by itself, would not measurably affect climate change adaptation or mitigation challenges in the Arctic or globally.
Mazzola	Lisa	_	26151	3	NEPA	This Alternative also allows for 2 north-south pipeline corridors through the Teshekpuk Lake Special Area to transport oil and gas from offshore leases to TAPS through areas otherwise closed to new infrastructure. Yet locations of such corridors will be decided at a later date and subsequent NEPA analysis, not in this current document. Allowing impactful infrastructure before allowing for adequate assessment of impacts is irresponsible.	At the programmatic level, we do not have enough information to analyze specific locations about where infrastructure, such as pipelines, roads, and drill pads, will be located. This plan makes no decision regarding the exact location of such corridors; potential corridors shown on maps are shown for representational purposes only. Specific pipelines will be analyzed in subsequent NEPA analyses when a pipeline project is proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Patil	Vijay	_	27372	2	NEPA	(5) Flint, P. L., and S. Thompson. 2018. Prioritizing habitats based on abundance and distribution of breeding and molting waterfowl. Report by USGS, Alaska Science Center, Anchorage, AK.	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included as appropriate. The referenced citation was included and an analysis of molting area effects of the alternatives was included in Appendices P and Q.
Patil	Vijay	_	27372	3	NEPA	It seems inappropriate that lease sales have been held during the public comment period for the draft IAP/EIS, and that these leases could be developed even if "an alternative would close an area to leasing that is already leased" (Vol. 1, Section 2.2.1) (1). This stipulation appears to apply even in Scenario A ('no action'), and could potentially invalidate any development restrictions adopted. As a result, the stipulation is counter to the goals of the EIS, and should be removed.	In 2011 President Obama directed the BLM to conduct annual lease sales in the NPR-A. Land management actions do not stop while a plan is in review. All lease sales since 2013 comply with the 2013 IAP ROD until a new ROD is signed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Patil	Vijay	_	27372	2	NEPA	Map 3-19 also indicates that selected areas of goose molting habitat would be surrounded by a 1-mile buffer to provide protection from disturbance associated with surface occupancy and development. However, the associated text for alternative D (rule K-7, Vol. 1, p. 2-33) (1) indicates that goose molting lakes would be protected by 0.5 mile buffers. As a result, it is not clear which buffer width would actually be used, and no justification is provided for either choice. The draft IAP/EIS does cite an internal report provided by the U.S. Geological Survey(5) to explain how areas of protected goose molting habitat were selected, but this document is not publicly available and therefore not useful for informing public comment. The discrepancy in proposed buffer widths should be noted and resolved, and the rationale for the chosen buffer width should be clearly laid out using publicly-available research.	The goose molting lakes identified in Stipulation K-7 (Stipulation K-6 in the Preferred Alternative) would be protected by a 0.5-mile buffer. The maps have been updated to reflect this. The buffer was set at 0.5 miles to maximize the number of lakes protected, while still providing enough land for potential oil and gas developments.
Wood	Ruth	_	27357	1	NEPA	I recommend that the document be amended to include a definition of Integrated Activity Plan, and an analysis of whether the work done to prepare this draft meets the requirements as defined. If the work done is not sufficient to meet the requirements, I recommend that this IAP/EIS be put on hold until the work can be done and a new draft developed.	The term IAP is defined in the glossary. The draft IAP/EIS provided an adequate analysis of the IAP.

Z.3.24 New Alternative Proposed

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	20	New alternative proposed	BLM should have considered at least one action alternative that maintained the Colville River Special Area and provided additional protections to it, given that it has recently come under threat from development proposals such as Willow. BLM's failure to provide any alternatives that provide maximum protection for Special Areas render its range of alternatives inadequate.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area.
Donahey	Leah	Alaska Wilderness League	29320	28	New alternative proposed	BLM should also consider an alternative that provides meaningful protections for subsistence uses. Because Nuiqsut subsistence users are already feeling severe impacts from ongoing activities in areas open to leasing under the current IAP, BLM should consider an alternative that limits activities on existing leases in important subsistence use areas, institutes a moratorium on activities in these areas, and/or buys back leases in these areas. BLM should also work with the community to develop meaningful, non-waivable stipulations and ROPs for activities occurring near the community and within its subsistence use areas, such as meaningful flight restrictions.	An oil and gas lease grants certain exploration and development rights, subject to reasonable regulation. Placement of a moratorium on such activities is not a reasonable regulation and thus is in contradiction of the lease rights. The BLM does not have authority or funding to buy back leases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	24	New alternative proposed	Roads and pipelines in some of the sensitive areas closed to leasing could have significant adverse environmental impacts on resources and values in the Reserve. The example selected by BLM of a road spanning the northern end of Teshekpuk Lake is a prime example of an area that would be irreversibly impacted by infrastructure projects. The draft EIS should have considered an alternative that does not allow such projects in sensitive areas closed to leasing. At a minimum, there should be a more limited definition of what would constitute such a project and more of an explanation of how any such project will be conditioned and limited to reduce the chance of it becoming an industrial access road.	Alternative A considers retaining prohibitions on leasing and infrastructure north of Teshekpuk Lake. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.
Donahey	Leah	Alaska Wilderness League	29320	19	New alternative proposed	BLM must revise and reissue its EIS with an alternative which actually makes additional areas that are subject to industry interest off limits to leasing. BLM should also produce maps of all alternatives under consideration with current leases depicted, so that the public can meaningfully comment on how the alternatives will interact with current leasing in the Reserve.	Alternative B would make additional lands off limits to leasing. The maps in Appendix A have been updated to show all currently held leases.

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Donahey	Leah	Alaska Wilderness League	29320	22	New alternative proposed	BLM should have considered a range of more protective stipulations for coastal areas, for instance by identifying areas as off limits for infrastructure, such as areas within polar bear Critical Habitat, or by expanding the 1-mile buffer to 8 km under one alternative to account for polar bear denning along the coastline. BLM should have also considered an alternative with a lease stipulation that has an objective at reducing coastal erosion by requiring additional actions by permittees to reduce erosion from any activities conducted along the coastline.	Alternative B has been updated to include a 5-mile setback from the coast. See Stipulation K-5.
Donahey	Leah	Alaska Wilderness League	29320	23	New alternative proposed	BLM must consider the impacts of non-compliance with these stipulations, for instance by including an alternative where these stipulations are not followed and by analyzing the impacts of what will occur if and when it waives those provisions. BLM cannot assume those protections will be in place for purposes of its impacts analysis, while simultaneously opening the door for those same protections to be waived down the line. BLM should also consider an alternative that does not allow waivers or deviations from ROPs and stipulations.	The BLM can issue waivers only when the objective of the ROP can be met through other means. Waivers and deviations are analyzed at the project level.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	25	New alternative proposed	BLM must consider a truly protective alternative: no new leasing. Because the No Action alternative reflects current IAP management, BLM should have considered an additional alternative that analyzed no further leasing or development within the Reserve. This would have provided an important basis for the public to compare the tradeoffs between continued leasing in the Reserve at historic levels, versus an alternative considering no or greatly reduced future oil and gas development.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Donahey	Leah	Alaska Wilderness League	29320	26	New alternative proposed	BLM must add one or more alternatives that minimize adverse environmental effects in a supplemental or revised EIS. A protective alternative should be guided by the conservation biology principles, focusing on ecosystem and watershed integrity and protection, providing buffer zones around critical wildlife habitats and corridors for animals to move between different areas of use.	The BLM is required to provide protection for surface resources in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	27	New alternative proposed	BLM should consider an alternative that would include designation of new special areas, such as one around the Ikpikpuk River. BLM should also include an alternative that expands the boundaries of the Teshekpuk Lake Special Area to protect important water- and shorebird breeding, molting, staging, and migration areas; expands the boundaries of the Peard Bay and Kasegaluk Lagoon Special Areas south to protect habitat for water- and shorebird breeding, molting, staging, and migration. BLM should also revise its EIS to include an alternative that does not allow for any pipeline corridors through the Teshekpuk Lake Special Area, as pipelines and associated industrial activity would lead to habitat fragmentation in this critical area for wildlife. BLM should have also considered an alternative that expands the boundary of the Colville River Special Area to the west to protect important raptor nesting areas along the river's upper tributaries and created enforceable and meaningful restrictions on activities near the Colville River. As evidenced by ConocoPhillips' Willow proposal, the Colville River Special Area's current protections do not go far enough to preclude environmentally damaging extraction activities within its boundaries. BLM should include an alternative in a revised EIS that considers the expansion of the boundaries of protections for Special Areas in order to consider environmental impact tradeoffs.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Creating additional special areas or expanding the boundaries of current special areas were dismissed from detailed analysis. See Section 2.3.2. of the Final IAP/EIS. Alternative A does not include pipeline corridors in the Teshekpuk Lake Special Area.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	131	New alternative proposed	The agency should retain the Colville River Special Area, and should have analyzed an alternative that increased protections for this special area, by placing areas off limits to further leasing and adopting additional protective measures.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A retains the Colville River Special Use Area.
Morry	Susan	Anaktuvuk	29324	1	New alternative proposed	they wrote up a proposal to the Board of Game for game management Unit 26A or B to go on the 2020 agenda with the Board of Game, and that was denied. And it was to reflect sports hunting within the area north of us where, like she stated, no guides from August, September, and partial October. Would you guys accept a comment from the community to put it in that big book over there?	The State of Alaska establishes the open season for sport hunting. It would be inappropriate for the BLM to effectively circumscribe the open season by limiting the time period for which sport hunting guides may obtain permits.
Hugo	Esther	Anaktuvuk Pass	29329	1	New alternative proposed	And understanding my people, our elders, they say these people, these sport hunters are going to the caribou in which we're waiting patiently for them to come because they know when they're coming through the pass. And if they could just stop giving them permits when we ask, probably end of August, all of September and at least a week of October, no-fly zone, no activity, give us that chance to get our food to survive for the cold winter. That's all we're asking. And we're just -- it's just like a huge problem.	The State of Alaska establishes the open season for sport hunting. It would be inappropriate for the BLM to effectively circumscribe the open season by limiting the time period for which sport hunting guides may obtain permits.
Hugo	Esther	Anaktuvuk Pass	29329	2	New alternative proposed	I just wanted to ask if you guys ever think of slowing down all those oil developments up in the Nuiqsut area or within the NPR-A because there's so many oil just around that village. Got to slow down.	The BLM is not legally allowed to require existing lessees to undertake phased development. Once a lease is sold, the BLM must process permits for development as they are received.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hugo	Francis	Anaktuvuk Pass	29328	1	New alternative proposed	All of the alternatives, they weaken as oppose to stands for what they are, which is pretty much what our community prefers, which is protection and consideration of the wildlife, you know. And all these other alternatives we can notice protections and we don't see any other alternative that will strengthen those protections. Why not? why not strengthen the protections as opposed to weaken them, which is what B, C, and D does to A?	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.
Mekiana	Denny	Anaktuvuk Pass	29325	1	New alternative proposed	But then I got with Esther and they sent down that no-fly zone, which is downriver here. It should be expanded out like the game of board put it. They agreed to it. From the month of August, September, and October. But it's never been shown. And I'd like to see that enforced, but they never did.	The State of Alaska establishes the open season for sport hunting and is responsible for enforcing hunting regulations.
Lanctot	Richard	Anchorage	27913	1	New alternative proposed	But if you were being objective, would you not say none of the land is available for lease as the most conservative versus all of it being available to lease as the least conservative and use that as your range of factors? And I'm wondering why that wasn't considered.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.
Tagaban	Austin (Naaweiya a)	Anchorage	27916	2	New alternative proposed	And so what this agency really should do is produce -- is revoke all oil and gas leases in the NPR-A, because we cannot extract any more oil because we are going to destroy this planet if we continue on this path.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.
Lloyd	Patty	Atqasuk	27311	1	New alternative proposed	This is Patty Lloyd. Dare I say, and -- is there an alternative as to none? And I hate to say that and I know, I know, but I hate to say that. But, okay, I'm just going to put it out there. I'm not going to apologize.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Knowles	Cybele	Center For Biological Diversity	27293	1	New alternative proposed	The draft environmental impact statement fails to provide a true analysis of the plan's long-term damage, loss of wildlife, and loss of subsistence values. This failure is particularly glaring considering the numerous oil drilling projects already underway in the reserve, including Willow, GMT-1 and GMT-2. I also object to the BLM's proposed alternatives - which are false, limited choices. All of them would drive more oil and gas leasing, and none do enough to protect the reserve. The BLM must consider a more protective alternative, including one that would leave all of the reserve's fossil fuels in the ground. Scientists have warned that all fossil fuels in the Arctic must remain untapped to meet international climate goals. As you know polar bears and other Arctic wildlife are among the animals most vulnerable to climate change - the ones who stand the most to lose from this project.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.
Monsell	Kristen	Center For Biological Diversity	27356	5	New alternative proposed	BLM's Draft EIS Fails to Examine a Reasonable Range of Alternatives, Including a No New Leasing Alternative NEPA requires all federal agencies, including BLM, to "rigorously explore and objectively evaluate all reasonable alternatives" to their proposed actions.274 The agency must "[d]evote substantial treatment to each alternative considered in detail . . . so that reviewers may evaluate their comparative merits."275 The purpose of this analysis is to "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public."276 In conducting this analysis, the agency must identify and analyze its preferred	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Alternative B considers prohibiting all oil and gas activity and most infrastructure in special areas within the NPR-A. The BLM is not required to identify a preferred alternative at the draft stage.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	alternative, as well as a null or “no action” alternative.277 274 40C.F.R. § 1502.14. 275 Id. 276 Id. 277 Id. The alternatives analysis is critical because it ensures “that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means.”278 In this way, the alternatives analysis is “'the heart of the environmental impact statement.'”279 As courts have made clear, “[t]he existence of a viable but unexamined alternative renders an [EIS] inadequate.”280 278 Envtl. Defense Fund, Inc. v. Corps of Eng'rs of U.S. Army, 492 F.2d 1123, 1135 (5th Cir. 1974); see also Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d1109, 1114 (D.C. Cir. 1971) (the alternatives requirement “seeks to ensure that each agency decision maker has before him and takes into proper account all possible approaches to a particular project(including total abandonment of the project) which would alter the environmental impact”). 279 City of Shoreacres v. Waterworth, 420F.3d 440, 450 (5thCir. 2005) (citing 40 C.F.R. § 1502.14). 280 Mont. Wilderness Ass'n v. Connell, 725 F.3d 988, 1004 (9th Cir. 2013) (quotations and citation omitted). Here, BLM's Draft EIS fails to identify a preferred alternative and fails to consider a reasonable range of alternatives. BLM's Draft EIS lists only four alternatives: (1) Alternative A (the no action, leaving the 2013 IAP in place);	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	(2) Alternative B (leaving the 2013 IAP largely in place, but with additional areas opened for drilling in the Teshekpuk Lake Special Area and eliminating the Colville River Special Area); (3) Alternative C (leasing on 75% of the Reserve); and (4) Alternative D (leasing on 81% of the Reserve). Each of these alternatives would drive more oil and gas leasing, and none do enough to protect the Reserve's important resources. For example, BLM failed to examine a no-new-leasing alternative. It is well established that the continued extraction of fossil fuels worsens the climate crisis, endangers air, water, public health, local communities, and wildlife, and undermines the protection of our public lands. BLM must examine a no-new-leasing alternative that would avoid these dangers altogether by ending new fossil fuel leasing in the Reserve. It is only through evaluation of such an alternative that the agency can "provide[] a [proper] benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the actionalternatives,"281 and thereby comply with one of the primary purposes of NEPA. BLM's failure to do so is arbitrary and unlawful. 281 46Fed. Reg. 18,026, 18,027 (Mar. 23, 1981). BLM should also consider an alternative that prohibits the use of hydraulic fracturing and other forms of dangerous oil extraction techniques to protect the Reserve from the numerous harms inherent in these dangerous practices; and an alternative that prohibits all oil and gas activity and infrastructure in particularly	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	important wildlife areas, such as polar bear critical habitat.	*(see above)*
Adams	Jim	National Parks Conservation Association	29262	16	New alternative proposed	Despite the acknowledgment of possible impacts, BLM gives them short shrift in their analysis and fails to even consider an action alternative that would protect the 40 communities that rely on the health of the WACH. Given the large-scale harm to subsistence resources and users and their sociocultural systems that BLM predicts, the draft EIS should consider and choose an alternative that avoids harm to northwestern Alaska subsistence activities and users.	Alternative B considers closing the entire Utokok Uplands Special Area to leasing and infrastructure, which includes the entire calving range of the Western Arctic Caribou Herd that is managed by the BLM.
Hartsig	Andrew	Ocean Conservancy	29278	6	New alternative proposed	Instead of analyzing alternatives that allow additional fossil fuel production, the draft IAP/EIS should consider alternatives that limit leasing and transition toward less fossil fuel production.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Meyer	Kennon	Patagonia Works	27179	3	New alternative proposed	The heart of an EIS is its exploration of possible alternatives to the action an agency wishes to pursue. In addition to specifying the underlying purpose and need to which the agency is responding, an agency preparing an EIS must rigorously explore and objectively evaluate all reasonable alternatives.25 Pursuant to NEPA, agencies must take responsibility for defining the objectives of an action and then provide legitimate consideration to alternatives that fall between the obvious extremes.26 In this case, the agency's range of alternatives is simply too narrow. At a minimum, the agency	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Designation of a special area, in and of itself, does not provide any protection. The current management of the NPR-A (Alternative A) does not allow a pipeline corridor through the Teshekpuk Lake Special Area, and this could be adopted in the ROD.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	must identify an alternative that actually maximizes protection of surface values. 25 40 C.F.R. §§ 1502.13, 1502.14. 26 40 C.F.R. § 1502.14; N.M. ex rel. Richardson v. BLM, 565 F.3d 683 (10th Cir. 2009). Alternative A, the No Action Alternative, would continue the current management approved by the 2013 NPR-A IAP ROD. Alternative B would reduce the NPR-A area available for leasing and would also increase the areas closed to new infrastructure from Alternative A's 8.3 million acres to 10.5 million acres. However, despite these additional protections, this Alternative B would also provide two north-south pipeline corridors to allow for linear rights-of-way to transport oil and gas from offshore leases in areas that would otherwise be closed to new infrastructure. Alternatives C and D would increase the total number of acres available for leasing compared to Alternatives A and B, thereby affording less protection over the NPR-A natural resources. In order for the BLM to meet its NEPA obligations to present a reasonable range of alternatives, BLM must develop a new Alternative E that would meaningfully limit oil and gas leasing and development within the NPR-A sufficient to protect the environment. At a minimum, this new Alternative should maintain the special areas that are currently designated in the NPR-A, including the Colville River Special Area. The Colville River provides nesting habitat for a high number of raptors and also is home to numerous species of fish, including northern pike, round whitefish, and salmon.27 As will	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	be discussed further below, oil and gas development poses a direct threat to the wildlife that inhabit this area and the other special areas in the NPR-A. Offering maximum protections to these special areas would not include the construction of two north-south pipeline corridors running through Teshekpuk Lake Special Area. In fact, given the importance of the Teshekpuk Lake Special Area to caribou herds, a maximum-protection approach would preserve the caribou herds' essential habitat by providing additional spatial protection. Overall, a more appropriate and environmentally reasonable alternative should minimize the amount of NPR-A acreage that is available for oil and gas leasing. And of the acreage that is available for leasing, Alternative E should also preserve the existing landscape by maximizing the acreage that is unavailable for new infrastructure. 27 Colville River, Alaska Wilderness League, http://www.alaskawild.org/places-we-protect/colville-river/In addition to special area designations and overall development limitations, Alternative E should also enlarge development-related activity setbacks and buffers to protect essential natural resources. This should include development setbacks and buffers around polar and grizzly bear dens, major rivers, local communities, essential fish habitat (including Fish Creek), caribou calving grounds, coastal areas, and any land essential for reproduction, nesting, and birthing by both terrestrial and marine animals listed as threatened or endangered under the Endangered Species Act ("ESA"). While the existing	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	alternatives do already provide some degree of buffers and setbacks from these resources, to reasonably preserve NPR-A resources and communities, a more appropriate Alternative E would require even greater distances of separation to better preserve NPR-A resources and communities. Similarly, in an effort to preserve the natural environment, the updated Alternative should recommend as Wild and Scenic Rivers the 12 rivers in the NPR-A that have been determined to be suitable for designation as part of the National Wild and Scenic Rivers system.	*(see above)*
Meyer	Kennon	Patagonia Works	27179	13	New alternative proposed	Because of the dangers oil and gas development poses to polar bears, as well as to other threatened and endangered species in the NPR-A, the BLM should include a more protective alternative that would increase the setback and buffer zones surrounding reproductive, birthing, and denning locations for endangered and threatened species, like the polar bear.	All setbacks were developed by the BLM and cooperating agencies, and all alternatives are consistent with the Marine Mammal Protection Act and Endangered Species Act. Any development will include site-specific NEPA analysis and may incorporate additional protective measures, as appropriate. A 1mile coastal setback will protect 90% of terrestrial denning habitat and is appropriate for this programmatic level document.
Meyer	Kennon	Patagonia Works	27179	16	New alternative proposed	Under the DEIS alternatives, both Patagonia's customers and employees would lose invaluable terrain in this area of the Northern Slope. Such a deprivation of recreation is a loss Patagonia simply cannot afford, given that the world is increasingly being scorched by the destructive forces and effects of climate change. The BLM must provide an alternative that is more protective of the recreational resources within the NPR-A.	The NPRPA establishes oil and gas development as the primary purpose of the NPR-A. Other uses that are not explicitly prohibited are allowed to the extent that they do not interfere with the primary purpose of the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Meyer	Kennon	Patagonia Works	27179	15	New alternative proposed	Overall, the DEIS does little in the way of providing relief for these sensitive species. For example, concerningly, under Alternative D, as many as 67.5% of calving female Teshekpuk Caribou Herd is expected to be in areas available for new infrastructure.101 As Tables R-2 through R-7 in Appendix R demonstrates, Alternatives C and D would likewise drastically increase the amount of land available for oil and gas development, and much of this land is necessary for caribou calving. The protection of terrestrial animals throughout the NPR-A is beneficial to local communities, the region's diverse ecosystem, recreational pursuits, and, more broadly, the long-term survival of species in the world. The BLM must avoid implementing a plan that would allow for an expansion of oil and gas lease development at the expense of NPR-A wildlife. For this reason, the alternatives so far proposed in the DEIS are simply incompatible with protecting the habitat throughout the NPR-A. The BLM must provide an Alternative that would extend adequate protections to NPR-A wildlife and avert the shift toward habitat fragmentation. 101 DEIS vol. 1 at 3-175.	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Carroll	Geoff	Utqiavik	27401	2	New alternative proposed	We support a modified version of Alternative C, because it excludes leasing in some of the most important wildlife habitat for caribou, waterfowl, and shore birds; however, we feel it needs to be improved. For one thing, the no-leasing area in the Teshekpuk Lake caribou habitat area should be extended as far south as the time limitations area extends, you know, rather than have the time limitations area -- the -- that should all be no -- no leasing -- and as far west as the Ikpikpuk River. In addition, we oppose the provision that allows for one north/south pipeline corridor east of Teshekpuk Lake in the Teshekpuk Lake Special Area. The alternative makes no decision regarding the exact location of the corridor, so we really don't know where it would run. Unless it is run across the Kogru Inlet or across Teshekpuk Lake, it would have to be run along the narrow gap of land between the lake and the Kogru. As previously stated, this is an important migration corridor and a pipeline would have a detrimental effect on cows with calves moving through the insect relief -- moving to the insect relief area.	The range of alternatives includes these features under Alternative B. Pipeline corridors under all action alternatives are necessary to provide access to state and federal offshore leases. Any analysis that considers a pipeline route will consider mitigation measures to minimize impacts on wildlife.
Burkart	Greta	_	27329	6	New alternative proposed	Section: Alternatives Page: Sub section: Comment: Please present a no action alternative that involves no development	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.
Bryan	David	_	27232	3	New alternative proposed	Even under the existing IAP, there are unacceptable impacts to our climate, animals, water, land, and people, due to the rapid increase of oil activities in the Reserve. BLM should consider a more protective alternative.	Alternative B considers setting more land aside for conservation. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hirt	Julie	–	27924	1	New alternative proposed	Please consider a new land management plan in the NPR-A that would continue to exclude oil and gas development in and around Teshekpuk Lake and consider the additional effects development would have on a changing landscape that is already feeling the impacts from climate change.	Alternative B excludes oil and gas development in and around the Teshekpuk Lake area. The analysis of impacts considers the effects of development in conjunction with changing climatic conditions.
Lish	Christopher	–	27228	1	New alternative proposed	None of the alternatives do enough to protect the reserve, and would instead completely eviscerate the Colville River Special Area and expand oil and gas development into and around the Teshekpuk Lake Special Area and the community of Nuiqsut. These areas provide essential habitat for hundreds of species of animals and subsistence resources for over 40 Indigenous communities. Furthermore, Alaska is already experiencing dramatic effects of climate change, at twice the rate of the rest of the nation. I strongly urge the Bureau of Land Management to consider a more protective alternative, including one that would leave all of the reserve's fossil fuels in the ground.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.
Raynolds	Martha	–	27265	1	New alternative proposed	BLM (and all agencies) should have developed a Climate Emergency Alternative, based on climate change science. A Climate Emergency Alternative would include 1) no new leasing for fossil fuel exploration or extraction, 2) closing any dropped fossil fuel leases to any future leasing, and 3) encouragement of any potential carbon sequestration methods in the management of the NPR-A.	The analysis evaluated each alternative's contribution to global climate change. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas leasing in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wood	Ruth	_	27357	6	New alternative proposed	Teshekpuk Lake, its wetlands, and the coastline north of it must all be protected in any new IAP adopted for the NPRA. No oil and gas development nor associated infrastructure including roads and pipelines should be allowed in these areas. The importance of this area to loons, ducks, geese, to nesting shorebirds, to the Teshekpuk Caribou herd and its calving grounds, and to the polar bear and their denning areas makes cannot trivialized. None of the alternatives strengthen protections for these areas. Without an alternative providing for increased protection, the full range of alternatives has not been presented, and this draft IAP/EIS should be redrafted.	Alternative B considers closing the entire Teshekpuk Lake Special Area to oil and gas leasing and industrial infrastructure. Permits for community infrastructure in the Teshekpuk Lake Special Area would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.
Woodruff	Kent	_	27319	1	New alternative proposed	Based on the record of public meetings, at least some residents of the NPR-A would like to see more protection, setbacks, restricted areas, and buffers than the 2013 plan or any of the proposed action alternatives provide. This plan is simply not fully considering all reasonable or possible alternative actions (or non actions) like an update should.	Alternative B includes increased setbacks along rivers and Native allotments.
ZALAR	MARY	_	27337	1	New alternative proposed	I propose an additional alternative instead the options provided in the NPR-A Integrated Activity Plan because Alternatives A through D will have unacceptable impacts to our climate, people, animals, water, land, and migratory birds. I suggest ALTERNATIVE "N" for NO additional leasing or development.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

Z.3.25 Other

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	36	Other	Page #: 2-38 Table or figure: K-13 Pik Dunes Reviewer Name/Agency: ADF&G Comment: As the Objective for all alternatives is to “Retain unique qualities of the Pik Dunes, including geologic and scenic uniqueness, insect-relief habitat for caribou, and habitat for several uncommon plant species,” it would appear that sand and gravel mining authorized on a case-by-case basis for all alternatives would be in direct conflict with the objective of retaining the unique geologic and scenic uniqueness, insect-relief habitat for caribou, and habitat for several uncommon plant species of the Pik Dunes. This apparent conflict should be addressed.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. New infrastructure is not allowed in the Pik Dunes; see Stipulation K-13.
Bruno	Jeff	State of Alaska	29317	32	Other	Page #: 2-33 Table or figure: Table 2-3, K-7 Protection for Goose Molting Lakes Reviewer Name/Agency: ADF&G Comment: Alternative D indicates no surface occupancy and no new infrastructure, except for essential pipeline crossings, are components of this alternative. However, the Requirement/Standard indicates “only 'in-field' roads would be authorized as part of oil and gas field development. This apparent conflict between no new infrastructure and “ 'in-field' roads would be authorized” needs to be addressed.	Roads would be prohibited only in the goose molting lake buffers and caribou movement corridors. This means that an industrial road would not be able to connect infrastructure north of Teshekpuk Lake with existing infrastructure. Development would look like the Alpine development, where roads connect pads to the central processing facility but the facility itself has a road connection only with outside infrastructure in the winter.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	35	Other	Page #: 2-37 Table or figure: K-10 Teshekpuk Caribou Herd Movement Corridor Reviewer Name/Agency: ADF&G Comment: Within Alternative B, no new infrastructure is authorized except for linear features within the identified corridor and features within the corridor must follow the ROP identified in K-8. The linear features authorized within the corridor are pipelines only (Map 2-11); the ROP in K-8 (M-1) discusses a vehicle use plan that would imply roads are authorized. The appropriate ROP needs to be identified or the Alternative modified. Suggestion if applicable:	This standard will still apply to valid existing rights (i.e., leases that have been sold under previous IAPs). A vehicle use plan will be required upon development of any leases in this area. Additionally, under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. Any community infrastructure would have to comply with Stipulation K-8.
Bruno	Jeff	State of Alaska	29317	31	Other	Page #: 2-32 Table or figure: Table 2-3, K-6 Goose Molting Area Reviewer Name/Agency: ADF&G Comment: Alternative D states an ROP is available for new infrastructure under this alternative. The applicable ROP needs to be identified or its details presented in this alternative.	Chapter 2 has been updated in the Final IAP/EIS, clarifying ROPs and lease stipulations.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
McGuire	Rebecca	Alaska Shorebird Group	27169	4	Other	We are troubled that the BLM had a lease sale during public review of the current IAP/EIS. Some leases sold in December 2019 included lands that were to be preserved (and therefore unavailable for leasing) under Alternative B (e.g., around the village of Nuiqsut). The draft EIS states that "if any alternative would close an area to leasing that is already leased the existing lease could continue to be developed or renewed".18 Thus, these new leases shift the very nature of Alternative B in favor of development. For example, much of the acreage within Table 2-119 will change, and the associated environmental impacts to wildlife and their habitats addressed in the appendices will also change. The public is currently not able to provide unbiased review or comment, because Alternative B is no longer accurate - they were confounded by new leases sold in December. We therefore believe the concurrent lease sale should nullify the entire IAP/EIS process. Simply revising the draft EIS after public comment does not meet the basic requirements or transparent intent of the NEPA's public comment period. We need a new process considering true alternatives, as they exist today, post-least sales. 18 NPR-A DIAP/EIS, p. 2-2, 2-3. 19 NPR-A DIAP/EIS, p. 2-2, 2-3.	In 2011 President Obama directed the BLM to conduct annual lease sales in the NPR-A. Land management actions do not stop while a plan is in review. All lease sales since 2013 comply with the 2013 IAP ROD until a new ROD is signed. All maps for the Final IAP/EIS have been updated to reflect currently held leases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	48	Other	As an initial matter, it is not clear why BLM adjusted the previous BMP to eliminate protections for special status species - BLM must explain its reason for doing so. Importantly, BLM further states that "[l]ease notices do not impose new requirements," meaning that this notice does not provide any additional protections to listed species beyond existing ESA requirements.287 BLM should consider additional protections to ensure that its leasing plan for the Reserve - standing alone or considered together with cumulative effects - is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. --------- 287 1 DEIS at 2-7.	Lease Notice 2 makes clear that the BLM retains the discretion to ensure compliance with the ESA. The BLM is consulting with the USFWS and NMFS to identify ESA issues and to develop biological assessments.
Donahey	Leah	Alaska Wilderness League	29320	4	Other	In the draft EIS, BLM failed to consider an alternative or mitigation measures that would protect these values and address the serious impacts from oil and gas that are already occurring in the region and will compound as development and activities increase. The alternatives BLM offers are false, limited choices. All of the alternatives BLM is considering are directed toward opening additional areas to oil and gas, regardless of the impact to people, wildlife, and other values in the Reserve. We ask that BLM adopt a plan that provides the maximum level of protection for these values and areas and that does not open additional areas to oil and gas.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	112	Other	Beyond the Fish Creek setback, BLM has failed to consider meaningful mitigation measures to address the serious impacts of gravel mining in the Reserve. ROP E-8 does not contain adequate measures to minimize the environmental impacts of sand and gravel mining. ROP E-8 contains only a vague reference to the fact that a reclamation plan will be developed at some point in time. BLM should include specific parameters related to reclamation to ensure that it actually occurs and is done in an appropriate way.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. ROP G-1 requires the permittee to develop and implement an abandonment and reclamation plan approved by the BLM.
Donahey	Leah	Alaska Wilderness League	29320	162	Other	To facilitate better evaluation of the potential consequences of such a road system, several changes should be made to the FEIS. First, potential transportation system corridors should be visually depicted in maps. While the exact location of proposed infrastructure is unknown pending submission of applications, a general sense of where roads are likely to go could be depicted, similar to how pipeline corridors allowing offshore oil access are displayed under the action alternatives. Second, these general corridors should be used to estimate the length of roads and associated amount of gravel expected as a result of community infrastructure. This should be incorporated into the caribou impacts analysis, as is done with the infrastructure calculations for expected oil and gas infrastructure. Allowing a community transportation system through otherwise closed areas is a critical difference between Alternative A and the action alternatives and this should be clarified in the FEIS. Third, the community transportation system	At the programmatic level, the BLM does not have enough information about where infrastructure such as roads will be located to analyze specific locations. Also, the BLM has not received any permit applications for such a road. The impacts of a potential road are discussed qualitatively in each resource section. Specific roads will be analyzed in a subsequent NEPA analysis when a project is proposed.

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(see above)	*(see above)*	*(see above)*	*(see above)*	162 *(cont.)*	*(see above)*	needs to be incorporated into the reasonably foreseeable development scenario and its full and cumulative effects accounted for. Fourth, additional analysis needs to be made of the subsistence consequences of such a road, including potential harvest levels for caribou and potential for increased user conflict. The potential for out-of-region hunters to fly into Utqiagvik, rent a car, and drive to shoot caribou in the vicinity of Teshekpuk Lake should be clarified and considered. The DEIS points to road use limitations and hunting regulations as a potential way to mitigate such concerns, however, any reliance on such restrictions needs to explicitly discuss the potential for effective enforcement of restrictions and regulations. Budget cuts at State and Federal levels already are affecting law enforcement and may reduce the effectiveness of use restrictions.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	148	Other	The three action alternatives would subtly reduce mitigation measures for Steller's and spectacled eiders. BMP E-11 under Alternative A requires 3 years of surveys prior to construction that would take place within eider survey areas.825 The action alternatives, on the other hand, would allow this requirement to be "waived if an acceptable dataset already exists and is approved by the [Authorizing Officer]."826 But the DEIS does not explain what makes for an acceptable dataset, leaving this measure less enforceable and inviting the use of datasets that were not intended to serve as surveys using proper methodology. BMP E-11 under Alternative A also requires that utility lines must be buried, with few exceptions, and all exceptions must be reported to USFWS.827 The action alternatives do away with this provision, referring to ROPs E- 10 and E-21, but these ROPs do not require utility lines to be buried, and E-21 gets rid of the requirement to notify USFWS of any exceptions.828 Severing these infrastructure mitigation measures from Steller's and spectacled eiders reduces USFWS's oversight and reduces protections for these listed species. -------- 825 1 DEIS at 2-17. 826 1 DEIS at 2-17. 827 1 DEIS at 2-17. 828 1 DEIS at 2-16, 2-19.	ROPs E-10, E-11, and E-21 have been updated in the Final IAP/EIS. Changes to the BLM's ROPs do not affect the ability of the USFWS to oversee the protection of listed species.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	149	Other	The mitigation measures for yellow-billed loons are also reduced under the action alternatives. BMP E-11 under Alternative A requires 3 years of surveys for construction that would be within 1 mile of a lake equal to or greater than 25 acres.829 Under ROP E-11 for the action alternatives, these surveys would only be required “If yellow-billed loon habitat is determined to be present,”830 although the ROP does not specify what will count as “habitat” for yellow-billed loons that is present in the area. Moreover, ROP E-11 under the action alternative would allow “this requirement [to be] waived if an acceptable dataset already exists and is approved by the [Authorizing Officer].”831 As with an identical waiver for eiders (above), this loophole makes the measure less enforceable and opens the door to datasets that were not intended as surveys. -------- 829 1 DEIS at 2-17. 830 1 DEIS at 2-17. 831 1 DEIS at 2-17.	Surveys are known to have an impact on species being surveyed. The changes to ROP E-11 under the action alternatives were included to reduce potential impacts on these species.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	161	Other	The DEIS states from the outset that "[t]he IAP/EIS would also consider the potential for a road or other transportation system connecting communities across the North Slope."891 This would be allowed under all action alternatives.892 There is great uncertainty about what such a system could consist of or where it would go within the NPR-A, however what is stated in the DEIS is concerning. For example, the DEIS states that such projects can be permitted "in areas closed to oil and gas leasing and development or subject to no surface occupancy stipulations on oil and gas leases,"893 presumably along with on unleased lands or lands that are leased but for which the lessee has granted a right-of-way. It thus appears that there are no restrictions on where community transportation infrastructure could be permitted. This is deeply troubling given the sensitive nature of some areas within the NPR-A and the potentially severe consequences that could result. ------ 891 1 DEIS at ES-1. 892 1 DEIS at 2-3. 893 1 DEIS at 2-3.	Permits for community infrastructure would be authorized on a case-b-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and an analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	229	Other	The DEIS states that "ROPs E-1, E-4, E-5, E-7, and E-24 would help minimize potential direct obstructions to subsistence uses from infrastructure," but that "impacts to access may still occur due to some harvesters avoiding industry."1195 BLM also claims that ROPs C-5, E-2, E-6, and E-13 would address some disturbances to fish habitat from seismic activity, exploratory drilling, construction, and infrastructure development" and that "ROPs K-4, K-5, H-1, and H-4 provide a number of requirements and restrictions to marine vessel traffic and associated activities when in the vicinity of whales, walruses, polar bears, and seals, in addition to restrictions near important habitat areas."1196 ROPs E-4 and E-24 do not exist, so it is unclear what BLM is referring to in the DEIS. For the other mitigation measures BLM cites, it does not provide an adequate analysis of the effectiveness of those measures. BLM cannot just list mitigation measures without an adequate analysis. Merely listing those measures and stating they will minimize obstructions to subsistence is not a sufficient analysis for purposes of NEPA.	The Final IAP/EIS was updated to explain how listed ROPs protect surface resources. The reference to ROPs E-4 and E-24 was removed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Purtle	Joshua	California Office of the Attorney General	27340	8	Other	The Draft EIS's analysis of the differences in migratory bird impacts among the Draft EIS alternatives is even more lacking. NEPA requires agencies to "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14; see id. § 1502.14(b) (EIS must "[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits."). This alternatives analysis "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14; accord Pac. Coast Fed'n of Fishermen's Ass'ns v. Blank, 693 F.3d 1084, 1099 (9th Cir. 2012). The Draft EIS, in a section titled "Impacts Common to All Alternatives," provides a general discussion of the sorts of harms that might befall migratory birds due to oil and gas production in the Reserve. See 2019 Draft EIS at 3-133 through 3-148. The Draft EIS does not, however, explain how such impacts will vary among the four alternatives discussed in the document. Instead, the Draft EIS provides an estimate of how many birds would be present in areas open to leasing under each alternative-and nothing more. Id. at 3-149 through 3-151. Merely counting the birds in areas open to leasing does not help the public or BLM understand the extent to which each alternative will kill birds, devastate their habitat, or prevent them from breeding successfully.	The EIS contains a robust analysis of impacts on birds. At the programmatic level, the BLM cannot speculate on the number of birds that would be killed or displaced under each alternative. Instead, the analysis uses the overlap of bird distribution with areas available for leasing and development to estimate the degree to which impacts could occur under each alternative.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	BLM's limited analysis thus does not rationally explain the difference in impacts among the alternatives BLM has proposed. Nat. Res. Def. Council, 421 F.3d at 813 (holding Forest Service violated NEPA where it failed "to present complete and accurate information to decision makers and to the public to allow an informed comparison of the alternatives considered in the EIS"). Again, this alternatives analysis contrasts starkly with the analysis supporting BLM's 2013 Integrated Activity Plan. There, BLM explained in extensive detail how each alternative would affect migratory birds. 2012 Final EIS, vol. 2 at 165-87 (alternative A); 399-407 (alternative B-1); id., vol. 3 at 32-41 (alternative B-2); 149-58 (alternative C); 262-71 (alternative D). BLM must provide a similarly thorough analysis before it may proceed with any revision of the 2013 Integrated Activity Plan. Understanding the full extent of migratory bird impacts, and in particular how these impacts will differ among the management alternatives discussed in the Draft EIS, is essential for BLM to make an informed decision about how to manage the Reserve going forward. See Robertson, 490 U.S. at 349; Nat. Res. Def. Council, 421 F.3d at 812 ("Presenting accurate market demand information was necessary to ensure a well-informed and reasoned decision, both of which are procedural requirements under NEPA."). Such information is also essential to the public's understanding of the consequences of BLM's ill-advised proposal to abandon protections for the Reserve's world-	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	class bird habitat. Wildlands v. U.S. Forest Serv., 791 F. Supp. 2d 979, 991 (D. Or. 2011) ("The public is entitled to be accurately informed of the impact of the proposed action … and to have a meaningful opportunity to weigh in on the proposal during the period for public review and comment."); Nat. Res. Def. Council, 421 F.3d at 813. BLM must therefore recirculate a new Draft EIS with a full accounting of potential migratory bird impacts, thus providing the public with a meaningful opportunity to comment on BLM's proposal. Wildlands, 791 F. Supp. 2d at 991.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Purtle	Joshua	California Office of the Attorney General	27340	5	Other	At the outset, the Draft EIS fails to identify BLM's preferred management alternative- that is, which of the alternatives discussed in the Draft EIS BLM intends to select at this time. The NEPA regulations require BLM to "[i]dentify [its] preferred alternative or alternatives, if one or more exists, in the" Draft EIS, 40 C.F.R. § 1502.14(e), "so that agencies and the public can understand the lead agency's orientation." Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,027 (Mar. 23, 1981). Here, BLM has proposed alternatives that range from slightly reducing the total area available for leasing (Alternative B) to opening nearly the entire Reserve to oil and gas development (Alternative D). Given that broad range of possibilities, none of which BLM has identified as a preferred alternative, it is not clear at all whether BLM intends to vastly expand new leasing or more or less maintain the status quo. Without knowing what BLM intends to do, it is impossible for the public to fully understand or comment intelligently on BLM's proposal. See Riverbend Farms, Inc. v. Madigan, 958 F.2d 1479, 1486 (9th Cir. 1992) ("It is a fundamental tenet of the APA that the public must be given some indication of what the agency proposes to do so that it might offer meaningful comment thereon."). BLM should therefore identify a preferred alternative and recirculate the Draft EIS for an additional round of public comment, so that commenters have a meaningful opportunity to comment on BLM's proposal. See Riverbend Farms, 958 F.2d at 1486.	Under CEQ regulation 1502.14(e), the lead agency need not identify a preferred alternative in a draft EIS if it does not have one. A preferred alternative will be identified in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	141	Other	Even under Alternative D, however, proposed new required operating procedures (ROPs) and the K-series of "additional protection measures" could limit allowable activity in such a way that makes development and possibly even exploration uneconomic or unfeasible, effectively making increased leasing opportunity moot. Some of these measures, such as the proposal for "at least three inches of snow water equivalent above the highest vegetated surface" in ROP C-2a would impose significant new restrictions and do not appear to address any known problem. ConocoPhillips is concerned that the new ROPs and stipulations - on top of the approximately 270 existing best management practices (BMPs) and other protective measures - could be imposed to the detriment of the Willow project.	ROP C-2 has been updated in the Final IAP/EIS.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	42	Other	ROP E-7: Kuukpik generally supports the requirement to build pipelines a minimum of 7 feet from the ground surface. However, this ROP should also include language authorizing BLM to require a greater height if unusual or special circumstances warrant it (such as in particularly sensitive areas). Design features like elevated loops should be encouraged to allow even greater clearance where necessary. Finally, Kuukpik believes operators should be required to phase in pipeline elevations for any segments that are currently less than 7 feet from the surface, particularly at tie-ins to new pipelines that are being built to the 7 foot standard.	The ROPs included in this plan represent the base level requirements that will apply to all permittees in the NPR-A. When permitting specific projects, the BLM may consider supplemental ROPs that are more restrictive for specific locations.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	47	Other	ROP M-1: Kuukpik generally supports the proposed vehicle use plan requirements, but would expand the requirements to set more clear standards and limits, similar to those described in Stipulation K-9(t).	ROP M-1 was updated in the Final IAP/EIS.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	50	Other	K-12: Kuukpik does not support eliminating the CRSA but understands that this decision has obviously already been made. We will support ROPs that achieve the same purposes as the restrictions that currently apply in the CRSA. Kuukpik recognizes that the standards in the existing CRSA management plan were too vague to implement perfectly, but we categorically reject BLM's reasoning declaring those standards "unenforceable".70 If BLM is incapable of identifying "high quality" habitat for raptors, how can it purport to do so for any other species it is responsible for protecting? If it can't decide what setbacks are "feasible" in this context, how will BLM evaluate what's feasible with respect to other ROPs it proposes elsewhere in this very management plan (see, e.g., proposed ROP C-5, E-7, E-21)? BLM can't disavow its own expertise to justify getting rid of regulations. 70 2019 NPR-A IAP DEIS, p. 2-4.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	68	Other	ROP A-5: Kuukpik does not necessarily oppose reducing the refueling setback from 500 feet because this requirement is so routinely waived that it rarely applies anyway. However, we would prefer a 200 foot buffer instead 100 feet. The AO's discretion to authorize an exception should either be eliminated or more highly constrained than is currently proposed. Reducing the buffer from 500 to 200 (or I 00) feet should mean that waivers to the new standard are rarely needed.	ROP A-5 has been updated in the Final IAP/EIS.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	71	Other	ROP A-11: Kuukpik opposes the decision to eliminate the requirement to perform studies on contamination of subsistence foods because this is a serious concern for the people of Nuiqsut. In fact, Kuukpik believes there should be more such studies and their results publicized more widely in order to help assure local residents that their food is not contaminated by development. Based on the concerns voiced during many recent public hearings in Nuiqsut, all stakeholders should share that interest.	A comprehensive study of contamination in subsistence foods is beyond the scope of any single development. Requiring permittees to contribute financially to an ongoing study would contravene existing departmental guidance about compensatory mitigation. This study is more appropriate for federal, state, and local agencies to conduct.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	44	Other	ROP F-2 through F-4: Kuukpik is not aware of any studies or data that would justify reducing minimum flight altitudes over the Teshekpuk Caribou Herd in particular, and in general, would not support reducing any of the flight restrictions currently in place. However, we support proposed ROP F-4 and appreciate BLM's effort to address air traffic impacts on subsistence users. We would like to see this ROP expanded to limit flights over prime calving areas during calving season (approximately May-July). Kuukpik looks forward to working with BLM to implement this ROP successfully.	ROPs F-2, F-3, and F-4 have been updated in the Final IAP/EIS.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	45	Other	ROP H-1 and H-4: Given the expansive range of many subsistence resources and the interconnected relationships between those resources and multiple NPR-A communities, Kuukpik opposes limiting subsistence planning and consultations to projects within 50 miles of a community or 15 miles of a “heavily used subsistence river”. These limits are completely arbitrary and would exclude the voices of communities throughout the North Slope that may be affected by a project more than 50 miles away or have different opinions on the project than people in the immediate area. All of those voices are important and valuable. BLM should be looking for ways to get and keep NPR-A communities engaged in the decision-making process, not cutting them out of it.	These ROPs do not limit a permittee to consulting only with communities within 50 miles of their project.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	46	Other	ROP L-1: The proposed change would allow the AO to approve vehicle tundra travel if the proposal "minimize[s] impacts to the AO's satisfaction." Existing BMP L-1 only allows approval if studies "demonstrate that the proposed use would have no more than minimal impacts on soils and vegetation." This may seem like a minor change, hut's actually quite significant and an example of the type of subtle weakening of regulations that Kuukpik opposes throughout the ROPs because it puts full discretion for approval in the AO rather than by reference to an objective standard (i.e., "minimal impacts"). There is simply no realistic way to challenge a decision that is based completely on the A.O. 's "satisfaction". Kuukpik opposes changes that vest even more discretion in an agency to decide what is acceptable rather than defining clear rules and strict standards.	ROP L-1 still requires minimal impacts on surface resources prior to permitting tundra travel.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	41	Other	ROP E-1: Kuukpik supports the proposal to require operators to incorporate subsistence pullouts, ramps, and boat ramps into their road systems. Subsection {b) could be amended to allow affected subsistence communities to request that a boat ramp instead be constructed on a tributary or river other than the "heavily used subsistence rivers" if such a location would be preferable for subsistence purposes.	ROP E-1 has been updated in the Final IAP/EIS.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	48	Other	ROP M-2: As another conceptual point, Kuukpik objects to changes like the one proposed here that would only require a "plan" to keep vehicles free of invasive species rather than requiring "certification" that such vehicles are in fact free of invasives. There is no reason to move backwards in this manner.	It is not possible to certify that a vehicle is free of invasive species. ROP M-2 was rewritten to make it an achievable standard.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	66	Other	ROP A-1 and/or A-2-Kuukpik believes the ROPs should acknowledge and/or clarify that BLM's management plans does not prohibit a landfill from being authorized in NPR-A if it could be approved consistent with other applicable regulations and was not opposed by the community. As development moves west, it may become preferable to facilitate management of non-putrescible solid wastes (e.g., scrap steel, demolition material, junk vehicles, etc.) into properly prepared depleted mine sites, much like what is current happening at the Put 23 gravel site. NSB (under landfill plans approved by the BLM and perhaps the State) could potentially establish and operate a similar facility west of the Colville, perhaps using one of the two mine sites that are expected to be depleted for the Willow Project. Kuukpik is not sure whether the community would ultimately support such a facility, but believes the IAP should not foreclose it entirely (or be silent on it). Instead, the IAP should indicate that a landfill could be permitted on a site-specific basis if stakeholders, including the community of Nuiqsut, later determine that the benefits of such a facility would outweigh its potential impacts and risks.	The ROPs included in this plan and existing BLM regulations and policy do not prohibit a landfill from being authorized in the NPR-A. Landfills owned and operated by the North Slope Borough could be authorized by showing that use of non-federal lands is impracticable.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	69	Other	ROP A-6: Kuukpik disagrees with the proposal to eliminate a rule preventing reserve pits. Eliminating a prohibition invites operators to re-commence an activity that was formerly prohibited. Even if reserve pits are unlikely to return to normal operations, this change sets a bad precedent because there may be other practices that operators would be more likely to recommence if a prohibition is lifted.	Reserve pits were used in the past to capture drilling muds and fluids during legacy well drilling, but they are no longer used by industry today. There are approximately 21 inactive reserve pits in the NPR-A regulated by the State of Alaska under its Inactive Reserve Pit closure regulations, 18 AAC 60.440. If reserve pits were used in the future, surface discharge of reserve pit fluid is prohibited by State law.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	72	Other	ROP B-2: The proposed changes to water usage appear to be a modest improvement, but this also implicates the question of which agency will be responsible for water withdrawals (and discharges) going forward	Water withdrawal is managed by the State of Alaska.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	65	Other	ROP A-3-This change would eviscerate annual hazardous substance planning and training requirements. Currently-required “Spill prevention and response contingency plans” would be replaced with a “hazardous substances contingency plan”, which is not required to contain nearly the level of detail as the current BMP requires. Fewer activities would even be required to have such a plan. Annual spill response training would no longer be required. In fact, no spill response training is required at all. Kuukpik categorically opposes this change.	Spill prevention and response contingency plans are still required under 40 CFR 112.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	40	Other	ROP C-2: The proposed change to subsection (a) is an example of a clear and fixed standard that Kuukpik supports, both with respect to this proposed ROP and generally. Instead of leaving discretion in operators (and BLM to some degree) to determine when frost and snow cover are “sufficient” for ground operations to commence, proposed ROP C-2 requires soils to be frozen to 23 degrees at least 12 inches below the surface. Kuukpik supports reasonable, objective, and measurable standards like this one and would like to see more ROPs made as specific as this one.	ROP C-2 has been updated in the Final IAP/EIS.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	43	Other	ROP E-18: This change would reduce the timing restriction against ground-level activity near Steller's and Spectacled Eider nests from June 1--August 15 to June 1--July 31 . Kuukpik may not oppose this change if there is data to support the reduced timeframe, but such data is not provided in the Draft EIS. This proposed change should be explained further.	ROP E-18 was developed in coordination with the USFWS, based on the most current information about Steller’s and spectacled eiders.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	49	Other	K stipulations: Kuukpik's position on the changes proposed in each alternative are described elsewhere and will not be repeated with reference to each stipulation. However. we would support applying the vehicle use restrictions described in ROP K-9(f) to all areas in NPRA, not just the TLCHA. These should be incorporated into ROP M-1 and applied universally because the impacts these restrictions are intended to prevent should be mitigated regardless of where industry vehicles encounter caribou. Given the alternatives presented, we support the proposed 3 mile setback from the Colville River (as opposed to the current 2 mile setback). We do not believe the Draft proposes to change the setbacks for any other high value subsistence rivers near Nuiqsut, but we would likely support modest increases to those setbacks if proposed.	Stipulation K-1 has been updated in the Final IAP/EIS.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	51	Other	K-15: Kuukpik strongly supports the proposed 3-mile setbacks from Native Allotments and the requirement that any exceptions be considered only in consultation with the owner.	Allotment setbacks are included in the Preferred Alternative.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	67	Other	ROP A-4: This change eliminates the specific requirements that currently govern storage of oil and fuel products in the field and replaces them with vague and discretionary guidelines that essentially leave it up to industry to decide what practices are good enough to prevent and clean an oil or fuel spill. Kuukpik opposes this change because small scale oil and fuel spills are more likely to occur when industry is not required to follow the practices that are currently in place.	Storage of oil and fuel products is regulated by 40 CFR 112.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	70	Other	ROP A-7: Kuukpik does not understand the justification for this change. Even if the state normally regulates discharges, BLM has authority {as a landowner at least) to prohibit discharges onto its own land (regardless of the water quality regulations applicable to same) and should continue to do so.	ROPs that are duplicative of existing requirements were deleted. This does not mean that permittees may disregard those requirements.
Adams	Jim	National Parks Conservation Association	29262	14	Other	BLM must consider alternatives that would result in significantly lower greenhouse gas emissions.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Adams	Jim	National Parks Conservation Association	29262	14	Other	The DEIS fails even to consider any alternative that would limit leasing, and ultimately production, consistent with efforts needed to address climate change.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

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Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	7	Other	The draft EIS violates NEPA by failing to consider alternatives that would increase protections for subsistence use areas and resources, failing to provide adequate information to compare the subsistence effects of each alternative, and failing to adequately consider the impacts to Native allotments. All alternatives considered in the draft EIS will continue to increase harms to our subsistence use areas and resources. This does not meet BLM's obligations under NEPA and ANILCA § 810 to consider alternatives that protect subsistence resources and users.6 As BLM acknowledges, "[i]n almost all cases, future development in the NPR-A would directly affect subsistence uses of resources of major importance for the primary subsistence study communities."7 The draft EIS describes harm from noise, traffic, and other oil and gas activities affecting the "availability of resources, such as caribou, marine mammals, furbearers, small land mammals, fish, and migratory birds."8 6 Native Ecosystems Council v. U.S. Forest Serv., 418 F.3d 953, 965 (9th Cir. 2005). 7 Draft EIS at 3-234. 8 Id. at 3-235.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts to subsistence users and resources. The BLM conducted an evaluation of impacts on subsistence users and resources, in compliance with ANILCA, Section 810. Hearings were held in potentially affected communities to receive input on mitigation measures to reduce these impacts.

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Fisher	Kevin	North Slope Borough	29290	51	Other	Winter Tundra Travel {C-2) We are concerned with the new tundra travel requirements under ROP C-2 in Alternatives B, C and D. The use of snow ice equivalent and highest vegetative surface are new and untested terms for our region. There are problems with how to measure snow ice equivalent and the highest vegetative surface, leaving a lot open for interpretation. This could invite litigation and delay development. The new requirements could also be interpreted to prohibit prepacking activity. We do not believe there is a need for new tundra travel regulations in the NPR-A. The State of Alaska Department of Natural Resources and North Slope Borough have regulated tundra travel successfully for decades. The IAP regulations should continue to align with the existing state and local standards, which are the industry standards in Alaska. For these reasons, we support Alternative A for ROP C-2.	C-2 has been updated in the Final IAP/EIS.

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Fisher	Kevin	North Slope Borough	29290	50	Other	for subsistence consultations for permitted activities, the Borough requests that BLM retain the existing requirements contained in BMP H-1 and BMP H-2 under Alternative A, and adopt the requirements in ROP H-3 that would address hunting, fishing, and trapping by permittees. The Borough notes that these three BMPs/ROPs are largely the same as the corresponding ROPs recently adopted by BLM for the Coastal Plain Oil and Gas Leasing Program, and would ensure that consistent consultation procedures apply across the North Slope. In addition, the Borough requests that BLM adopt ROP H-5 to improve the public availability of environmental data.	ROPs H-1, H-2, H-3, H-4, and H-5 have been updated in the Final IAP/EIS.
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	7	Other	* BLM should avoid expanding areas of No Surface Occupancy or adding new No Surface Occupancy restrictions that would not meet the objectives of Secretarial Order 3352 or the NPR PA. As an example, the seven mile no surface occupancy over the Colville River proposed in Alternative B would restrict development of this high potential and high interest area to a degree which could be prohibitive to industry. Areas with large surface and access restrictions are not aligned with Secretarial Order 3352 and the NPR PA, and therefore should be removed from the IAP. Industry has a proven track record of operating in a safe and environmentally sensitive manner; BLM should collaborate with industry to design balanced mitigation measures rather than implementing outright restrictions on resource development activity.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.” The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.

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Senner	Stanley	–	27093	13	Other	p. 2-20 F. Use of Aircraft for Permitted Activities DEIS: "Aircraft use (including fixed-wing and helicopter) by oil and gas lessees in the Goose Molting Area (Appendix A, Map 2-1 and 2-2) should be minimized from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices." Comment: Why are no minimum flight altitudes (or lateral distances) established seasonally to reduce disturbance of molting geese as are established for raptors and caribou? Although disturbance of molting geese varies with altitude, type of aircraft and other conditions, the sensitivity of the molting geese to aircraft is well established and there is a considerable body of data to inform decisions about what those requirements should be. Vague language that aircraft use "should be minimized from May 20 through August 20" is nearly worthless. How will BLM determine and enforce what is appropriate?	Minimum flight altitudes were changed to be consistent across the NPR-A (including the Goose Molting Area). Exceptions to flight altitudes minimums will be considered on a case-by-case basis, and impacts on sensitive resources would be evaluated at the time of permitting.

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Strailey	Kaarle	–	29135	2	Other	A vast majority of the area set aside under Alt B as Lease deferral around Nuiqsut (no leasing for at least 10 years) is already also leased. And, as stated in the Draft IAP, "If an alternative would close an area to leasing that is already leased the existing leases could continue to be developed or renewed; however, if the leases were to expire, the tracts would not be available for re-lease." This effectively deems the protections of Alt B useless for areas under consideration that are already leased. This Alternative also allows for 2 north-south pipeline corridors through the Teshekpuk Lake Special Area to transport oil and gas from offshore leases to TAPS through areas otherwise closed to new infrastructure. Yet locations of such corridors will be decided at a later date and subsequent NEPA analysis, not in this current document. Allowing impactful infrastructure before allowing for adequate assessment of impacts is irresponsible and probably in violation of proper procedure.	Pipeline corridors under all action alternatives are necessary to provide access to state and federal offshore leases. Any analysis that considers a pipeline route will consider mitigation measures to minimize impacts on wildlife. The BLM considered a leasing deferral area around the City of Nuiqsut, and the Final IAP/EIS has been updated, based on public comments and community engagement, to show the new deferral area boundary.
Wood	Ruth	–	27357	9	Other	Lease stipulations and ROPs are good, but BLM gives itself permission to waive their requirements. Also, there is no discussion of how stipulations and ROPs will be monitored and enforced. From the testimonies at the public hearings, it appears that BLM has not sufficiently monitored and enforced development activities near communities, and that even when followed those stipulations and ROPs are followed, they are not sufficient to avoid serious degradation to animals, habitat, and people and their subsistence.	A ROP can be waived only if a permittee can demonstrate that they will meet the objective of the ROP through alternative means. The BLM has an inspection program for all of its permits to ensure that all ROPs are being followed.

Z.3.26 Other Laws

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Bruno	Jeff	State of Alaska	29317	85	Other Laws	As acknowledged in the IAP, FLPMA Section 202 does not apply to the NPR-A; the Production Act, as amended, along with implementing regulations at 43 CFR 2361, directs management of the NPR-A. Therefore, it is inconsistent with FLPMA and the Production Act, as amended, to describe management of the NPR-A as a “narrower range of multiple use management.” On the same basis, we also question the statement in the plan that “[U]nder the Federal Land Policy and Management Act, the Secretary has broad authority to regulate use, occupancy, and development of public lands and to take whatever action is required to prevent unnecessary or undue degradation of the public lands” (FLPMA Section 302(b)), without acknowledging that FLPMA Section 302(a) expressly limits that authority by deferring to the Production Act. This section should also recognize the definition of special areas in the Production Act implementing regulations defines maximum protection of [such] values “to the extent consistent with the requirements of the [Production] Act for the exploration of the Reserve” (43 CFR 2361.0-5(f)). The same intent is also included in the regulatory provisions at 43 CFR 2361.1(a) and (f) that include the language “to the extent consistent with the requirements of the Act.” Further, the preamble to these regulations states that “maximum protection of designated special areas does not imply a prohibition on exploration or other activities. In	Section 1.6 of the Final IAP/EIS was updated to remove reference to “multiple use.” The unnecessary or undue degradation standard of FLPMA Section 302(b) applies to the BLM's management of the NPR-A, subject to the special purposes of the Reserve identified in the Production Act. Section 2.2.1 of the IAP/EIS defines maximum protection, as the commenter indicates.

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(see above)	*(see above)*	*(see above)*	*(see above)*	85 *(cont.)*	*(see above)*	scheduling activities in these or other special areas, steps to minimize adverse impacts on existing resource values will be required and implemented" (Emphasis added, 42 FR 28723). We request BLM update this section with this important relevant information and expand on how provisions in 43 CFR 2361 are applied in the IAP.	*(see above)*
Bruno	Jeff	State of Alaska	29317	84	Other Laws	However, the IAP also includes several misleading statements and management direction that is inconsistent with FLPMA, the Production Act, as amended, and other applicable laws, such as the Alaska National Interest Lands Conservation Act (ANILCA). As discussed in greater detail below, the draft IAP needs to be amended to clarify and be consistent with the following: * The caveat in FLPMA Section 302(a) clarifies the Reserve is managed under the Production Act and implementing regulations at 43 CFR 2361, not as a "narrower range of multiple use management." * The wild and scenic river studies conducted in conjunction with previous IAPs, the results of which are being carried forward into the revised IAP, violate ANILCA Section 1326(b), which prohibits such studies in Alaska, unless authorized in ANILCA or a subsequent Act of Congress. * The 1981 Appropriations Act, which exempted the NPR-A from FLPMA Sections 202 and 603, is the later and more specific statute, superseding the authority in ANILCA Section 1320. It is misleading to imply that ANILCA Section 1320 gives BLM the authority to implement any aspect of the "Wild Lands" Policy in the	Section 1.6 was clarified to say "multiple use and sustained yield" of Section 202 of FLMPA does not apply. Section 5(d)(1) of the Wild and Scenic Rivers Act provides "In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials." Also, the NPRPA does not exempt NPR-A from the Wild and Scenic Rivers Act, and Section 1326(b) of ANILCA does not apply because the IAP/EIS is not a single-purpose study. as described therein. Thus, the BLM properly reviewed Wild and Scenic River suitability in this planning effort.

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(see above)	*(see above)*	*(see above)*	*(see above)*	84 *(cont.)*	*(see above)*	NPR-A; ANILCA Section 1320 is not applicable and the Production Act, as amended, does not direct BLM to protect wilderness values. NPR-A Management Not Multiple Use The "Legislative Constraints" section (Section 1.6, page 1-4) describes management of the NPRA as "…consistent with the Naval Petroleum Reserves Production Act, the NPR-A IAP/EIS addresses a narrower range of multiple use management than a resource management plan (e.g., it makes no decisions on opening lands to hard rock or coal mining.)." Section 302(a) of FLPMA clearly states: The Secretary shall manage the public lands under principles of multiple use and sustained yield, in accordance with the land use plans developed by him under section 202 of this Act when they are available, except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law. [Emphasis added]	*(see above)*
Bruno	Jeff	State of Alaska	29317	87	Other Laws	"Wild Lands" Policy Not Applicable to the NPR-A The IAP includes an inventory of wilderness characteristics, analyzes the impacts of the proposed IAP on those characteristics, and through the effect's analysis, infers wilderness characteristics will be protected by permit stipulations and required operating procedures.3 The IAP claims the authority for these actions stems from FLPMA Section 201 and the National Environmental Policy Act (NEPA). However, neither of these authorities authorize BLM to protect or prioritize the management of lands with wilderness characteristics,	NEPA requires the BLM to analyze impacts on all relevant resources, including wilderness characteristics, however none of the alternatives were designed to protect wilderness characteristics. Some aspects of the alternatives may indirectly benefit wilderness characteristics.

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(see above)	*(see above)*	*(see above)*	*(see above)*	87 *(cont.)*	*(see above)*	and since FLPMA Sections 202 and 603 do not apply to the NPR-A, BLM cannot conduct, and is not conducting, a full wilderness review in the NPR-A. While FLPMA 201 directs BLM to conduct an inventory of public lands, without authority to conduct a wilderness review under FLPMA or direction to protect wilderness values under the Production Act, there is no reasonable or legal basis for conducting a wilderness inventory or managing to protect wilderness characteristics.4 3 “Stipulations, BMPs, and ROPs would be implemented, which would provide protections from potential impacts on wilderness characteristics…” (Page 3-291) 4 FLPMA Section 201 states “The preparation and maintenance of such inventory or the identification of such areas shall not, of itself change or prevent change of the management or use of public lands.” US Supreme Court stated in Robertson v. Methow Valley Citizens Council1989 “Other statutes may impose substantial environmental obligations on federal agencies, but NEPA merely prohibits uninformed - rather than unwise - decisions.” Under the Production Act, as amended, BLM is limited to protecting areas that contain “significant subsistence, recreational, fish and wildlife, or historical or scenic value” (PL 94-248, Section 104(b)). The IAP also indicates BLM has authority to apply former Secretary of Interior Ken Salazar's controversial “Wild Lands” Policy to the NPR-A as “interim” management per ANILCA Section 1320;5 however, ANILCA Section 1320 was superseded by the	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	87 *(cont.)*	*(see above)*	Appropriations Act, which amended the Production Act and exempted the NPR-A from Sections 202 and 603 of FLPMA. Further, the interim management direction in Section 1320 applies to "recommended wilderness" and is therefore, not relevant because BLM cannot, and is not, conducting a wilderness study or recommending Congress designate wilderness in the NPR-A. Additionally, the direction to manage in accordance with applicable "land use plans" is in reference to land use planning (i.e. Resource Management Plans) under FLPMA Section 202, which does not apply to the NPR-A.6 We therefore request the reference to, and any implications associated with ANILCA Section 1320, be removed in the final IAP. 5 "While Section 603 of Federal Land Policy and Management Act of 1976 requires that, pending congressional action, the BLM shall manage lands recommended for designation "so as not to impair the suitability of such areas for preservation as wilderness," Section 1320 of The Alaska National Interest Lands Conservation Act states that "in the absence of congressional action," the BLM shall manage the lands recommended for wilderness designation "in accordance with the applicable land use plans and applicable provisions of law." Consistent with Secretary Ken Salazar's June 1, 2011, memorandum to the BLM Director, in accordance with Federal Land Policy and Management Act of Section 201, the 2012 NPR-A Final IAP/EIS (BLM 2012, Section 4.3.18) described lands in the Reserve possessing wilderness	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	87 *(cont.)*	*(see above)*	characteristics and the potential impacts on those characteristics." (Page 3-290) 6 "Notwithstanding any other provision of law, section 603 of the Federal Land Policy and Management Act of 1976 shall not apply to any lands in Alaska. However, in carrying out his duties under section 201 and section 202 of such Act and other applicable laws, the Secretary may identify areas in Alaska which he determines are suitable as wilderness and may, from time to time, make recommendations to the Congress for inclusion of any such areas in the National Wilderness Preservation System, pursuant to the provisions of the Wilderness Act. In the absence of congressional action relating to any such recommendation of the Secretary, the Bureau of Land Management shall manage all such areas which are within its jurisdiction in accordance with the applicable land use plans and applicable provisions of law." (Emphasis added, Section 1320 of ANILCA) In addition, the "Wild Lands" Policy is derived from both Sections 201 and 202 of FLPMA; therefore any implication that wilderness characteristics are being protected under the Wild Lands Policy is not valid because protection under the policy stems from FLPMA Section 202, which does not apply to the NPR-A. Further, since the Production Act, and its implementing regulations, is limited to "provide[ing] procedures for the protection and control of environmental, fish and wildlife, and historical or scenic values" (43 CFR 2361.0-1), and does not specify wilderness values,7 we disagree with	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	87 *(cont.)*	*(see above)*	applying any aspect of the “Wild Lands” Policy to the NPR-A, the purpose of which is to inventory and consider protections of wilderness characteristics (i.e. wilderness values based on the definition of wilderness in the Wilderness Act). Without authority to conduct wilderness studies or protect wilderness characteristics, ANILCA Section 1326(b) further prohibits studies in Alaska that consider establishing CSUs or for related or similar purposes, unless authorized in ANILCA or a subsequent Act of Congress. Designated wilderness is a CSU under ANILCA and the “Wild Lands” Policy is an administrative, not Congressionally authorized, action that establishes defacto wilderness. We, therefore, request BLM not implement any aspect of the “Wild Lands” Policy in the NPR-A, including the wilderness inventory and any indication that wilderness character is being protected by requirements in the IAP. 7 Section 105(c)(1) of the 1976 Production Act required a study of the Reserve, which included consideration of wilderness values. Section 104 of the Production Act and implementing regulations at 43 CFR 2361.0-1 do not include wilderness values and instead calls for protection and control of environmental, fish and wildlife, and historical or scenic values in the NPR-A, consistent with the requirements of the Act for petroleum exploration of the reserve. The IAP also cites and indicates the results of the wilderness inventory conducted in a study authorized in Section 105(c)(1) of the 1976 Production Act has been	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	87 *(cont.)*	*(see above)*	incorporated into the IAP wilderness inventory. To ensure there is no confusion over the relevance of the study requirement in the 1976 Production Act, we request the IAP clarify that the study provision preceded the 1981 Appropriations Act. This is an important clarification as the 1981 Appropriations Act amended the Production Act and exempted the NPR-A from FLPMA Sections 202 (Land Use Planning) and 603 (BLM Wilderness Study). We also request that the IAP identify the full scope of the studies authorized under Section 105 of the 1976 Production Act, including Section 105(b)(1), which required a study conducted "in consultation with representatives of the State of Alaska, to determine the best overall procedures to be used in the development, production, and distribution of petroleum resources in the reserve." The scope of the studies authorized in Section 105 of the Production Act when administration was being transferred from the U.S. Navy to the Department of the Interior was much broader than the scope of a wilderness study under FLPMA. The Study under 105(c)(1) of the Production Act was to be conducted by a task force that included representatives from the State of Alaska, local communities and other federal agencies: "…to determine the values of, and best uses for, (A) the natives who live or depend upon such lands, (B) the scenic, historical, recreational, fish and wildlife, and wilderness values, (C) mineral potential, and (D) other values of such lands." Further, Congress required the	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	87 *(cont.)*	*(see above)*	Section 105(c)(1) study be concluded within three years (i.e., 1979) of the Act's passage (Section 105(3) of the Production Act). Prior to the 2012 IAP/EIS, BLM appropriately recognized the limited authorities applicable to the NPR-A, which did not include wilderness protection. For example, the 1983 NPR-A FEIS states: The BLM recognizes the Congressional intent of PL 96-514, which indicates that no "wilderness" designations will be made in the Reserve and the intent of PL 96-487 [ANILCA]. The BLM cannot reinterpret Congressional authority through administrative procedures. [Page 450, 2012 Final NPR-A IAP] The 2008 NE NPR-A Final Supplemental IAP/IES states: Because creating new wilderness designations is inconsistent with the management objective, alternatives proposing such an action [wilderness designation] are outside the scope of the Amended IAP/EIS and this supplement thereto. [Page 450, 2012 Final NPRA IAP]	*(see above)*
Bruno	Jeff	State of Alaska	29317	21	Other Laws	Page #: D-6 Table or figure: Federal Laws & Regulations Reviewer Name/Agency: ADNR Comment: No reference is made to authorities of USDOT Pipeline Hazardous Materials and Safety Administration (PHMSA), which oversees safe operations of pipelines. Suggestion if applicable: Add reference to USDOT oversight	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	47	Other Laws	Page #: Appendix D, Page D-1 Table or figure: Reviewer Name/Agency: ADF&G Comment: The lead in sentence indicates this Appendix will outline the requirements of federal, state, and local laws and regulations associated with future development in NPR-A, in a few instances the Appendix lists relevant policies used (e.g., USFWS Mitigation Policy), please include other relevant agency policies being used to impose requirements on development. Suggestion if applicable: Revise as outlined below: Requirements of federal, state, and local laws, and regulations, and policies associated with future development in the NPR-A are provided below. D.2 FEDERAL LAWS. AND REGULATIONS, AND POLICIES The following summarizes federal laws, and regulations, and policies relevant to the oil and gas leasing program in the NPR-A.	The Final IAP/EIS was updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	48	Other Laws	Page #: Appendix D, Page D-3 Table or figure: Reviewer Name/Agency: ADF&G Comment: According to the FWS 1981 Mitigation Policy the Service's mitigation authorities are largely advisory. They have the ability to recommend mitigation under NEPA, the Clean Water Act, Fish and Wildlife Coordination Act, and ESA. The Service's authority to require mitigation is limited, to include the Service's own actions and those instances clearly established by law and components of their ESA authority. We point out that the 1981 FWS Mitigation Policy was established in accordance with, among other Statutes, the Fish and Wildlife Coordination Act that requires coordination with the State fish and wildlife agency (ADF&G) when making mitigation and enhancement recommendations (except to threatened and endangered species, which are not covered by this mitigation policy) to Federal agencies. The 1981 Mitigation Policy does not allow the Service to make recommendations related to the enhancement of fish and wildlife resources beyond that which would exist without the project. Suggestion if applicable: Please clarify the manner that the USFWS Mitigation Policy is being used in the NPR-A and how collaboration with ADF&G staff will be conducted to determine mitigation and enhancement recommendations.	The mitigation is a comprehensive blueprint for mitigation planning. It outlines the USFWS's approach for determining what is important in terms of agency concern and the level of mitigation to be pursued as a matter of agency policy.

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Bruno	Jeff	State of Alaska	29317	56	Other Laws	Page #: 1-2, 1.3 Table or figure: Reviewer Name/Agency: ANILCA Comment: For consistency with Sections 102 and 104 of the Production Act, the 1981 Appropriations Act, and 43 CFR 2361, please edit the last sentence as follows: The Naval Petroleum Reserves Production Act, as amended, and its implementing regulations require oil and gas leasing in the NPR-A and the protection of surface values to the extent consistent with exploration, development, and transportation of oil and gas.	The Final IAP/EIS was updated.
Moriarty	Kara	Alaska Oil and Gas Association	29265	3	Other Laws	BLM's issuance of a new IAP/EIS must have no adverse effect on the permitting and authorization of the Willow project. Finally, AOGA directs BLM's attention to the Willow project, which is the most significant project currently being planned in the NPR-A and is essential to the future of oil and gas in Alaska. The Willow project will provide a needed boost to Alaska's oil production and Alaska's economy, will create and maintain a substantial number of jobs, and will make a significant step toward achieving the policy goals expressed in Secretarial Order 3352 and the NPRPA. Accordingly, it is absolutely essential that BLM ensure that a new IAP/EIS (and the inevitable associated legal challenge) does not interfere with the completion of the ongoing permitting for, and the authorization of, the Willow project, which has been planned and reviewed under the existing IAP/EIS.	Existing leases would not be affected by the stipulations or closures considered in the alternatives for this IAP/EIS. However, if a lease is renewed for an additional 10-year term under 43 CFR 3135.1-6, the lease stipulations of the new IAP would replace the original lease stipulations. The IAP/EIS has been revised to further explain its relationship to subsequent permitting actions, for proposals involving leases issued under prior IAPs.

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Donahey	Leah	Alaska Wilderness League	29320	12	Other Laws	In sum, the Reserve's management statute mandates protections of special areas and special values of the Reserve. BLM's action alternatives do not meet these mandates. As explained throughout this comment letter, BLM's action alternatives remove a wide range of protections for existing Special Areas that were put in place to protect fish and wildlife and subsistence practices. None of BLM's action alternatives expands existing Special Areas or adds new ones. Instead, they do the opposite by reducing protections for these areas. All of BLM's action alternatives eliminate the Colville River Special Area, and all of them reduce protections for the Teshekpuk Lake Special Area. Removing and reducing protections for these Special Areas is inconsistent with the NPRPA.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Creating additional special areas or expanding the boundaries of current special areas were dismissed from detailed analysis. See Section 2.3.2. of the Final IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	13	Other Laws	In order to meet its mandate under the NPRPA, BLM must strengthen Special Area protections, including no-leasing and no-non-subsistence surface occupancy areas, as well as add protective measures in leases and best management practices as well as expand Special Area designations. Because the DEIS does not meet BLM's obligations, BLM should abort its efforts to change the IAP, or go back to the drawing board and create more protective alternatives that fulfill its mandates.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Creating additional special areas or expanding the boundaries of current special areas were dismissed from detailed analysis. See Section 2.3.2. of the Final IAP/EIS. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	14	Other Laws	In the DEIS, BLM appears to be solely focused on opening additional areas to oil and gas leasing and development and not on its countervailing statutory mandate to protect Special Areas and values in the Reserve - even going so far as to modify its purpose and need for this EIS in an attempt to downplay its statutory obligation to protect those areas and resources. This is contrary to what is required of the agency under the Administrative Procedure Act. BLM needs to address its previous findings and provide a reasoned explanation for its change in position.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Alternatives C and D would open additional areas to leasing, whereas Alternative B would close areas to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.” There are multiple ways in which to achieve a balance between promoting development and protection of surface resources.
Donahey	Leah	Alaska Wilderness League	29320	44	Other Laws	NEPA's implementing regulations require an EIS to “state how alternatives considered in it and decisions based on it will or will not achieve the requirements [of NEPA] and other environmental laws and policies.”241 Here, the draft EIS fails to explain how BLM will comply with its substantive and procedural obligations under the Endangered Species Act (ESA). In our scoping letter, the Groups identified the statutory mandate for BLM to ensure that the leasing program met the agency's obligations under the ESA and that if BLM ultimately decides to modify the IAP, it should do so in a way that promotes enhancement and recovery of special status species in the	The BLM is consulting with the USFWS and NMFS under Section 7 of the ESA to identify ESA issues and to develop biological assessments.

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(see above)	*(see above)*	*(see above)*	*(see above)*	44 *(cont.)*	*(see above)*	Reserve.242 Several species protected under the ESA243 inhabit the Reserve and its nearshore waters, and include but are not limited to whales, bearded and ringed seals, spectacled and Steller's eiders, and polar bears.244 BLM must clarify whether and where designated critical habitat for listed species occurs in the area under consideration for lease, as the DEIS is unclear on this point. ------------ 241 40 C.F.R. § 1502.2(d); see Montana Wilderness Ass'n v. McAllister, 658 F. Supp. 2d 1248, 1255-56 (D. Mont. 2009); Pac. Coast Fed. of Fishermen's Ass'ns v. Interior, 929 F. Supp. 2d 1039, 1059-60 (E.D. Cal. 2013). 242 Letter from Alaska Wilderness League et al., to Stephanie Rice, Bureau of Land Mgmt., Re: Scoping Comments for the National Petroleum Reserve-Alaska Integrated Activity Plan Environmental Impact Statement 74 (Jan. 22, 2019)[hereinafter Scoping Comment Letter]. 243 16 U.S.C. §§ 1531-1544. 244 See 35 Fed. Reg. 18319 (Dec. 1, 1970) (bowhead whale listing); 77 Fed. Reg. 76706 (Dec. 28, 2012) (ringed seal listing); 77 Fed. Reg. 76740 (Dec. 28, 2012) (bearded seal listing); 73 Fed Reg. 28212 (May 15, 2008) (polar bear listing); 58 Fed Reg. 27474 (May 10, 1993) (spectacled eider listing); 62 FR 31748 (June 11, 1997) (Steller's eider listing).	*(see above)*

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Donahey	Leah	Alaska Wilderness League	29320	46	Other Laws	The draft EIS also fails to adequately describe how BLM will comply with Section 7's procedural requirements.	To comply with Section 7 of the ESA, the BLM began consulting with the USFWS and NMFS early in the IAP/EIS process. The BLM is consulting with the USFWS and NMFS to identify ESA issues and to support development of their biological opinions. All operators will be subject to regulations and stipulations under the ESA and MMPA.
Donahey	Leah	Alaska Wilderness League	29320	47	Other Laws	Additionally, BLM's Lease Notice describing the ESA consultation process must be strengthened to ensure BLM carries out its mandate to provide for the recovery of listed species.	Lease Notice 2 makes clear that the BLM retains the discretion to ensure compliance with the ESA.
Donahey	Leah	Alaska Wilderness League	29320	2	Other Laws	BLM's draft EIS fails to account for and protect the wide range of values and uses beyond oil and gas in the Reserve, contrary to its statutory obligations under the Naval Petroleum Reserves Production Act. All of the action alternatives are focused on expanding oil and gas. BLM must give consideration to all values of the Reserve and is obligated to protect non-oil and gas values.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Donahey	Leah	Alaska Wilderness League	29320	45	Other Laws	To comply with its Section 7 consultation requirements, therefore, BLM must consult not only on the lease sales contemplated in the draft EIS, but on the impacts of exploration, production and development to federally protected species.	To comply with Section 7 of the ESA, the BLM began consulting with the USFWS and NMFS early in the IAP/EIS process. The BLM is consulting with the USFWS and NMFS to identify ESA issues and support development of their biological opinions. All operators will be subject to regulations and stipulations under the ESA and MMPA.

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Donahey	Leah	Alaska Wilderness League	29320	51	Other Laws	In conclusion, the ESA requires federal agencies to give first priority to the declared national policy of conserving endangered and threatened species - i.e., by using all methods and procedures necessary to bring such species to the point at which ESA protections are no longer necessary.289 BLM cannot lawfully authorize an oil and gas leasing program in the NPRA that is likely to jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat. Nor can it engage - or permit others to engage - in activities that will result in unauthorized incidental take of listed species. These requirements are put into practice through the Section 7 consultation process. The draft EIS fails to explain how BLM will comply with these important substantive and procedural legal requirements, in violation of NEPA's implementing regulations. 290 At this time, it does not appear that BLM has completed formal consultations under the ESA. Before the agency can make its final decision as memorialized in the Record of Decision, it must complete consultations under Section 7 and obtain biological opinions (or written NLAA concurrences) from NMFS and FWS. It must also fully explain in the Final EIS how it has ensured that its considered alternatives and its ultimate choice of alternative, as reflected in the ROD, will or will not achieve the requirements of the ESA. ----------- 289 16 U.S.C. § 1362(3). 290 40 C.F.R. § 1502.2(d).	To comply with Section 7 of the ESA, the BLM began consulting with the USFWS and NMFS early in the IAP/EIS process. The BLM is consulting with the USFWS and NMFS to identify ESA issues and support development of their biological opinions. All operators will be subject to regulations and stipulations under the ESA and MMPA.

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Donahey	Leah	Alaska Wilderness League	29320	55	Other Laws	To comply with FLPMA, BLM must manage the Reserve in a manner that, consistent with the NRPRA, protects the existing surface values and provides for use of the Reserve for activities other than oil and gas. The DEIS states that "[e]ach of the alternatives described in Chapter 2, consistent with the Naval Petroleum Reserves Production Act and the mandates of 40 CFR 1502.14, presents a different approach to such regulation of the public lands and presents different approaches to prevent unnecessary and undue degradation."350 BLM provides no explanation to support this statement. Further, it is not clear that BLM's action alternatives satisfy BLM's mandate to prevent unnecessary and undue degradation. ----------- 350 1 DEIS at 1-4.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Kenning	Erik	ASRC	29299	7	Other Laws	BLM should not expand areas of no surface occupancy or add new areas with such restrictions that would not meet the objectives of Secretarial Order 3352 or the National Petroleum Reserve Production Act of 1976 (NPRA PA).	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.

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Kenning	Erik	ASRC	29299	26	Other Laws	Northeast NPRA Supplemental IAP Record of Decision ASRC believes that the 2008 Record of Decision laid out the way to responsibly lease the area north of Teshekpuk Lake with a 10 year deferral period for additional studies. It required the BLM work with the appropriate federal, state and local agencies to develop a study of molting brand and geese. To ASRC's knowledge, these studies have been complete and therefore opening of these lands should be part of this final IAP.	Alternative D considers opening these areas to oil and gas leasing and is based on the ROD from the 2008 Northeast Supplement.
Purtle	Joshua	California Office of the Attorney General	27340	6	Other Laws	BLM cannot lawfully justify additional leasing in those areas of the Reserve that were closed under the 2013 Integrated Activity Plan. Although the Reserve Act instructs BLM to conduct oil and gas leasing in the Reserve, it also requires the agency to ensure that “[a]ny exploration within” the Reserve's important ecological areas “shall be conducted in a manner which will assure the maximum protection of such surface values to the extent consistent with the requirements of this Act for exploration of the reserve.” 42 U.S.C. § 6504(a). The Act specifically requires protection for the Teshekpuk Lake wetlands complex. Id. Based on the best available science at the time, the 2013 Integrated Activity Plan sought to adhere to the Act's mandate to protect the Reserve's environmental values while allowing for oil and gas development. In the 2013 Plan, BLM determined that prohibiting leasing in about half of the Reserve, including the Teshekpuk Lake area in the northeast and caribou habitat in the southwest, was necessary to assure “maximum protection” of the Reserve's	The IAP/EIS considers different ways to balance development and conservation. The NPRPA requires “maximum protection of important surface resources consistent with oil and gas exploration.” This provision makes clear that oil and gas activities are allowed in Special Areas, albeit subject to maximum protection conditions. Areas that would be opened to leasing under Alternatives C, D, and E would be subject to additional protections addressing sensitive resources.

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	ecologically important areas. Secretary Salazar explained in the Record of Decision for the 2013 Plan that prohibiting leasing in these areas "protects lands of importance for caribou calving and insect relief … and a variety of waterbirds and shorebirds." 2013 Record of Decision at 20. In particular, the leasing restrictions are required to protect the lands "nearest Teshekpuk Lake that are most heavily used by calving caribou and molting geese." Id. BLM adopted these leasing prohibitions despite acknowledging that the Teshekpuk Lake complex includes some of the Reserve's "most promising" areas "for oil discoveries." 2013 Record of Decision at 19. Specifically, the so-called "Barrow Arch," a major oil-bearing geological structure in Alaska's Coastal Plain "along which all producing oil on the North Slope has been found, runs north of [Teshekpuk Lake] from the southeast to the northwest." Id. To account for this high oil and gas value, BLM decided to allow oil and gas leasing on the eastern edge of the wetlands complex, noting that these opened lands "are close to existing leases" and thus "offer the greatest promise for oil and gas development." Id. at 20-21. Thus, BLM concluded, making this limited portion of the Teshekpuk Lake area available for new oil and gas development, while leaving the rest of the area untouched, "constitutes a proper balancing of BLM's management responsibilities for" the Reserve. Id. at 21. BLM now seeks to allow additional leasing in the Teshekpuk Lake complex and other protected areas. The Draft EIS fails to	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	provide any explanation or justification for BLM's proposal to lift prior leasing prohibitions in ecologically important parts of the Reserve. See FCC v. Fox Television Stations, Inc., 556 U.S. at 515. BLM cannot rationally justify abandoning the 2013 Plan's leasing prohibitions. The facts underlying BLM's 2013 Record of Decision have not changed. Teshekpuk Lake continues to provide exceptional habitat for migratory birds and other animals and the southwestern portion of the Reserve continues to support a caribou herd that is critical to Alaska Native subsistence hunters in the region. BLM considered these values, and the potential for oil development in Teshekpuk Lake and elsewhere in the Reserve, and determined that prohibiting leasing was required to comply with the Reserve Act. 42 U.S.C. § 6504(a). If anything, conditions are worse now for the Reserve's wildlife than they were in 2013. As discussed, climate change has already had, and will continue to have in the coming years, significant impacts on the Arctic and on caribou and migratory birds. Recent reports also confirm that several of the area's sensitive bird species have likely experienced population decline over the last decade. See FWS, Waterbird Abundance at 1. Compounding this problem, the Interior Department recently abandoned a decades-old policy of prohibiting the accidental killing of migratory birds, thus giving the green light to oil and gas developers to cause greater impacts to birds in the Reserve than they have before. See Memorandum from	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	Principal Deputy Solicitor to Secretary of Interior Re: The Migratory Bird Treaty Act Does Not Prohibit Incidental Take (Dec. 22, 2017) (attached as Exhibit 10). These impacts will add to the devastating impacts from BLM's proposal to open the Arctic National Wildlife Refuge's Coastal Plain to oil and gas development. New development in the Reserve and the Refuge could destroy or degrade vast amounts of vital migratory bird habitat, leaving many of our nation's migratory birds with little haven for breeding and rearing their young. These impacts, which are in addition to the potential impacts BLM considered when it adopted the 2013 Integrated Activity Plan, militate for more protection in the Reserve- not less. As discussed above, the Trump Administration's own Fish and Wildlife Service agrees that BLM should not expand leasing in the Reserve's important habitat. In a scoping letter regarding BLM's proposal to revise the Integrated Activity Plan, the Service affirmed that it “continues to support the 2013 Record of Decision as regards to continued protection of sensitive areas,” including Teshekpuk Lake, the Colville River Special Area, and the Utukok River Uplands. FWS Scoping Letter at 1-2. The Service explained: “We believe full protection of these areas is necessary to sustain the biodiversity and ecologic integrity of the North Slope/coastal plain, especially given the likely impacts of climate change and increased coastal erosion.” FWS Scoping Letter at 2. The Pacific Flyway Council has likewise pressed the Interior Department to	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	maintain protections for Teshekpuk Lake and other key habitat in the Reserve, citing these areas' "exceptional importance to wildlife." Pacific Flyway Council Letter. It is unlawful for BLM to move forward with its proposed leasing expansion when the expert agencies charged with protecting the nation's sensitive wildlife have urged BLM to turn back. See Platte River Whooping Crane Critical Habitat Maint. Tr. v. FERC, 876 F.2d 109, 117 (D.C. Cir. 1989) (holding agency acted unlawfully when it ignored FWS's "expert opinion" regarding potential threats to whooping cranes). For all these reasons, BLM cannot lawfully justify any new oil and gas leasing in the Reserve's currently-protected areas. 42 U.S.C. § 6504(a).	*(see above)*
Rowland-Shea	Jennifer	Center for American Progress	26211	2	Other Laws	When the Reserve was transferred from the U.S. Navy to the Interior Department, the legislation mandated that the BLM administer the land for the purposes of oil and gas leasing while protecting any areas "containing any significant subsistence, recreational, fish and wildlife, or historical or scenic value." This proposal fails to strike that balance.	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	142	Other Laws	It is critically important to ConocoPhillips - and, we believe, important to many others, too - that the IAP/EIS revision proceed in a manner that does not undermine, burden, or delay the Willow MDP permitting process or project execution. In our view, the best way to protect against that risk is for BLM to expressly provide that the Willow MDP will proceed under the existing IAP and not be included within the scope of the revised IAP. That means that none of the new restrictions proposed in the pending IAP/EIS will apply to the Willow MDP, and also that none of the analysis in the pending IAP/EIS is necessary to support approval of the Willow MDP. ConocoPhillips relied upon the existing requirements when it purchased its leases and has planned the Willow development accordingly. The law does not allow BLM to switch the rules and requirements near the end of the permitting process in a manner that is contrary to the lease rights and existing permitting requirements that ConocoPhillips has relied upon. CPAI is not aware of any law, regulation, or policy that constrains BLM's ability to define the scope of the IAP to exclude the Willow MDP.2 In short, exclusion of the Willow MDP from the revised IAP is the lawful and practical approach. --------------------- 2 There is a BLM regulation - 43 CFR 1610.5-3 - that addresses “plan conformity,” but that is not an issue here because there is not expected to be any lack of conformity between the Willow MDP and the revised IAP. In any case, the regulation does not apply to management of federal lands	Existing leases would not be affected by the stipulations or closures considered in the alternatives for this IAP/EIS. However, if a lease is renewed for an additional 10-year term under 43 CFR 3135.1-6, the lease stipulations of the new IAP would replace the original lease stipulations. The IAP/EIS has been revised to further explain its relationship to subsequent permitting actions, for proposals involving leases issued under prior IAPs. The BLM agrees that there is not a plan conformity requirement for NPR-A, for the reasons stated by the commenter.

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(see above)	*(see above)*	*(see above)*	*(see above)*	142 *(cont.)*	*(see above)*	in the NPR-A. It applies only to Regional Management Plans adopted under Section 202 of the Federal Land Policy and Management Act of 1976 (FLPMA), see 43 CFR § 1601.03, and Section 202 of FLPMA has been expressly excluded from application to the NPR-A, see 42 USC § 6506a(c) ("The provisions of section 1712 and section 1782 of title 43 [Sections 202 and 603 of FLPMA, respectively] shall not be applicable to the Reserve.").	*(see above)*
Lavin	Pat	Defenders Of Wildlife	29308	1	Other Laws	The Endangered Species Act requires federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The Marine Mammal Protection Act prohibits any take of marine mammals unless, among other things, that take would have a negligible impact on a population or stock. The activities that BLM is proposing violate both of these standards, in both the NPRA and the Arctic Refuge coastal plain.	To comply with Section 7 of the ESA, the BLM began consulting with the USFWS and NMFS early in the IAP/EIS process. The BLM is consulting with the USFWS and NMFS to identify ESA issues and support development of their biological opinions. All operators will be subject to regulations and stipulations under the ESA and MMPA.
Henry	Lupita	Point Lay	27301	7	Other Laws	You know, you say there's a management plan. So what if the North Slope Borough, a state entity, permits kayakers on the NPR-A side and allows them to come in but they cross that border? That's breaking the state's constitution under Title 25. Under the state's law what enforcement is being placed upon the borough and the state when that occurs?	Each regulatory authority (State, Borough, or federal) is responsible for enforcing its own permit conditions. Residents who see violations of a permit can report that violation to the appropriate permitting authority.

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Long	Becky	–	24912	1	Other Laws	Alternative D is bad as it opens the entire Teshekpuk Lake Special Area to leasing. In fact, all the action alternatives violate the Naval Production Act of 1976. They do NOT provide maximum protection to areas with significant subsistence, recreation, fish, wildlife and historic use. These are the Teshekpuk Lake and Utukok Uplands special areas. This revision violates that law under which the revision is operating.	The BLM used the best information available at the time of the development of the IAP/EIS. New information presented during the public comment period will be reviewed and included, as appropriate. NEPA does not require an agency to fill data gaps before making a decision.
Reichardt	Paul	–	27861	3	Other Laws	With the significant shift toward development allowed by Alternatives C and D, what is the basis on which they can be considered to be in compliance with the requirement of the Naval Reserves Production Act of 1976 to provide “maximum protection” for the area, specifically for the Teshekpuk Lake and Utukok River Uplands Special Areas? Was the record of decision for the 2013 IAP for NPR-A flawed or incorrect?	The NPRPA requires “maximum protection of important surface resources consistent with oil and gas exploration.” This provision makes clear that oil and gas activities are allowed in Special Areas, albeit subject to maximum protection conditions.
Strom	Mallory	–	5735	2	Other Laws	When Congress authorized oil and gas leasing in the Reserve, it was mandated that activities ensure maximum protection of areas that have significant subsistence, recreational, fish, and wildlife, or historical or scenic value. The BLMs proposal to prioritize oil and gas development in these areas is contrary to its statutory obligations to provide maximum protections for surface values, such as fish and wildlife, which are critical not only for a healthy ecosystem in the Reserve, but also subsistence.	The NPRPA requires “maximum protection of important surface resources consistent with oil and gas exploration.” The Executive branch has great discretion in defining “maximum protection consistent with oil and gas exploration.”

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Stebbins	Christy	_	27117	1	Other Laws	Secretarial Order 3352 is in direct conflict with the stated mission of the BLM for the National Petroleum Reserve, which is "To sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations."	The NPRPA requires "maximum protection of important surface resources consistent with oil and gas exploration." All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Strailey	Kaarle	_	29135	3	Other Laws	The Naval Petroleum Reserves Production Act of 1976 requires oil exploration in areas with "significant subsistence, recreational, fish and wildlife, or historical or scenic value" be conducted in a way that provides "maximum protection." It specifically identifies the Teshekpuk Lake and Utukok River areas for this protection. Alternative D clearly violates this;	The NPRPA requires "maximum protection of important surface resources consistent with oil and gas exploration." This provision makes clear that oil and gas activities are allowed in Special Areas, albeit subject to maximum protection conditions.

Z.3.27 Paleontological Resources

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Geiser	Mary Jane	Atqasuk	27889	1	Paleontological Resources	You're the anthropologist, okay. Because, I mean, my -- not being from here, I mean, but I guess my concern is, you know, yes, the historical of the people, the anthropological, but the archeol -- -- yeah, say that word. Anyway, because, you know, I mean, you've got the -- the diggings along the Colville that were done several years ago where you -- you're actually finding fossils of when this was a much warmer climate, you know, that support the -- the oral history of the people. That, to me, needs to be preserved, as well, not just the surface historical sites, but what's underground, as well. So how -- how are things going to be protected when they're discovered if they start being dug up?	The protection of cultural and paleontological resources is addressed throughout the IAP/EIS and specifically in those respective resource sections. The current paleontological text references ROP E-13, which has as its objective the protection of cultural and paleontological resources. Permittees would conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Permittees will avoid known cultural and paleontological sites by a minimum of 500 feet from the site boundary. Upon discovering a potentially undocumented cultural or paleontological resource, the permittee or their designated representative will notify the AO and will suspend all operations in the immediate area of the discovery until the AO issues a written authorization to proceed. Consultation with communities during the NEPA and Section 106 processes will occur to further explore options for impact minimization and mitigation measures. The BLM manages paleontological resources using scientific principles and expertise, including collection in accordance with permits; curation in an approved repository; and maintenance of confidentiality of specific locality data. Thus, paleoenvironmental data recovered during a permitted excavation or

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(see above)	*(see above)*	*(see above)*	*(see above)*	1 *(cont.)*	*(see above)*	*(see above)*	unanticipated discovery would be available for scientific study and reconstructing climate history.

Z.3.28 Petroleum Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Lubetkin	Susan	_	27324	68	Petroleum Resources	BLM. 2012. National Petroleum Reserve-Alaska (NPR-A) Final Integrated Activity Plan/Environmental Impact Statement. In cooperation with the North Slope Borough, US Bureau of Ocean Energy Management, and US Fish and Wildlife Service. Anchorage, Alaska: US Department of Interior, Bureau of Land Management. Data used and works cited In Volume 2, Section 4.2.2 (pp 80-94), Spills and Releases are summarized. Most of the quantitative details about spill risks are incorporated by citing previous BLM reports, specifically: BLM 2011 (Chukchi Sale 193) BLM 2008 (NE NPR-A FSEIS) BLM 2005 (NE NPR-A F Amended EIS) BLM and MMS 2003 (NW NPR-A Final IAP/EIS) BLM and MMS 1998 (NE NPR-A Final IAP/EIS) BLM 2004 (Alpine Satellite Development Plan EIS) - included in this annotated bibliography “This analysis focuses on the chance of occurrence over the life of the oil and gas scenario and potential impacts of hydrocarbon spills, gas leaks and produced water or seawater spills” (Vol. 2, pp. 80-81). “The information, models, and assumptions used to analyze the potential for oil spills are described	Recent spill information from the Alaska Department of Environmental Conservation was used in calculating the spill rates (ADEC 2020; https://dec.alaska.gov/Applications/SPAR/PublicMVC/PERP/SpillSearch).

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(see above)	*(see above)*	*(see above)*	*(see above)*	68 *(cont.)*	*(see above)*	in Appendix G … based on historic Alaska North Slope oil spill data" (Vol. 2, p, 81). Data for estimating spills in Appendix G comes from (Vol. 2, p. 82): BLM and MMS 1998 (NE NPR-A Final IAP/EIS) BLM 2005 (NE NPR-A F Amended EIS) BLM 2008 (NE NPR-A FSEIS) "recent Alaska North Slope oil spill history" The most recent of these data are at least 7 years old at this point. Spill size definitions Spill size categories (Vol. 2, p. 82): Small = less than 500 barrels (less than 21,000 gallons) Large = between 500 and 120,000 barrels (between 21,000 and 5,040,000 gallons) Very large = more than 500 barrels (more than 5,040,000 gallons) "Large spills are defined as greater than or equal to 500 barrels for the Alaska North Slope onshore and state waters and the Trans-Alaska Pipeline System… Estimates for large spills from production … are based on the historic large spill rates and sizes from onshore Alaska North Slope oil industry spills from 1985 to 2010 for large crude spills and the Trans-Alaska Pipeline System pipeline spills from 1977 to 2010" (Vol. 6, p. 83). Cumulative oil spills "Information on large crude oil spills is based on historic crude oil data from the Alaska North Slope…. Crude oil spills from the Trans-Alaska Pipeline Systems are included in the analysis of the cumulative case" (Vol. 2, p. 82). Section 4.8.4 (Vol. 4, pp. 65-66) is concerned with Cumulative Oil Spills. "The average volume of crude oil spilled annually	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	68 *(cont.)*	*(see above)*	to 2000 from the Alaska North Slope operations and the Trans-Alaska Pipeline System segment from Pump Station 1 to Atigun Pass is 523 barrels [21,966 gallons] of crude oil and 278 barrels [11,676 gallons] of product (Niebo, pers. comm., as cited by National Research Council, 2003)” (Vol. 4, p. 65). “To estimate the assumed number of large oil spills for the analysis of cumulative effects, BLM used a production estimate” (Vol. 4, p. 65). Based on work shown in Appendix G, the spill rate of large (>500 barrel or >21,000 gallon spills) is 0.65 large spills per BBbl produced in the Alaska North Slope and then another 0.55 large spills per BBbl oil transported through the TAPS pipeline (Table 4-40 on p. 66 of Vol. 4). Appendix G: Information, Models, and the Assumptions Used to Analyze the Effects of Oil Spills is pp. 81-102 in Vol. 6. “Estimating a future oil spill is an exercise in probability. There is uncertainty associated with the location, timing, number, and volume of spills, the chemical and physical properties of the spill, and the environmental conditions at the time of a spill…This appendix explains the data, methods, and results of an analysis of historic crude oil, refined product ('product') and saline spills for the Alaska North Slope, including wells, facilities and other pipelines up to (but not including) Pump Station 1 (PS-1)… The purpose of this spill analysis is to estimate the potential spill rates. The rates are used to estimate the	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	68 *(cont.)*	*(see above)*	potential crude, refined oil, and saline spills" (Vol. 6, p. 81). For large crude oil spills (spills larger than 500 barrels (21,000 gallons)) "For the Alaska North Slope, all available information on historic industry spills greater than or equal to 100 barrels [4200 gallons] during the period 1968 through 2000 was obtained from industry and regulatory agencies and collated (Hart Crowser, Inc. 2000)… Although Hart Crowser, Inc. (2000) states that the database is complete for the years since production began, the BLM prefers to use 1985 as the starting point of reliability for large spills and 1989 for small spills" (Vol. 6, p. 83). Table G-2 (Vol. 6, p. 84) lists 8 spills (at least 500 barrels in volume) of crude oil from Alaska North Slope facilities and pipelines from 1985-2010. There were 12.40 BBbl oil produced on the Alaska North Slope between 1985-2010 (Vol. 6, p. 87). Table G-3 (Vol. 6, p. 86) lists 9 spills (at least 500 barrels in volume) of crude oil from the Trans-Alaska Pipeline System from 19772010. There were 16.28 BBbl oil produced on the Alaska North Slope between 1977-2010 (Vol. 6, p. 87). Thus the rates of large oil spills (>21,000 gallon) per BBbl oil produced can be calculated: 8 large spills/12.4 BBbl oil produced = 0.65 large spills per BBbl oil produced on the Alaska North Slope 9 large spills/16.28 BBbl oil produced = 0.55 large spills per BBbl oil produced for the Trans-Alaska Pipeline System For	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	68 *(cont.)*	*(see above)*	small crude and refined oil spills (spills smaller than 500 barrels (21,000 gallons)) Table G-7 (Vol. 6, p. 92) lists 1754 spills (smaller than 500 barrels in volume) of crude oil from Alaska North Slope facilities and pipelines from 1989-2009 and that there were 9.4 BBbl oil produced on the Alaska North Slope during that time period. Table G-9 (Vol. 6, p. 93) lists 5026 spills (smaller than 500 barrels in volume) of refined oil from Alaska North Slope facilities and pipelines from 1989-2009 and that there were 9.4 BBbl oil produced on the Alaska North Slope in those years. Thus the rate of small oil spills (<500 barrel or <21,000 gallon) per BBbl oil produced can be calculated: 1754 small spills/9.4 BBbl oil produced = 187 small spills of crude oil per BBbl oil produced on the Alaska North Slope 5026 small spills/9.4 BBbl oil produced = 540 (sic; I calculated 534.7) small spills of refined oil per BBbl oil produced on the Alaska North Slope For large saline spills (spills larger than 500 barrels (21,000 gallons)) Table G-5 (Vol. 6, p. 90) lists 6 spills (at least 500 barrels in volume) of saline from the Alaska North Slope from 1995-2009. There were 5.6 BBbl oil produced on the Alaska North Slope between July 1995-December 2009 (Vol. 6, p. 89). Thus the rate of large saline spills per BBbl oil produced can be calculated: 6 large spills/5.6 BBbl oil produced = 1.1 large spills per BBbl oil produced for the Alaska North Slope based on data from a	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	68 *(cont.)*	*(see above)*	Nuka Research and Planning Group report from 2010 and spills of 1000 gallons or more listed in its Appendix D.	*(see above)*
Bruno	Jeff	State of Alaska	29317	93	Petroleum Resources	Page #: ES-7 Table or figure: Reviewer Name/Agency: ADEC Comment: Bullet four on this page discusses greenhouse gas emissions and the emissions from downstream consumption of oil. This appears to conflict with the administration's Executive Order 13783 "Promoting Energy Independence and Economic Growth" and CEQ's Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions. This guidance tells agencies they need not quantify direct and reasonably foreseeable indirect greenhouse gas emissions unless they are sufficiently "substantial" and unless there are available tools to do so. Suggestion if applicable: Please explain how these greenhouse gases would be sufficiently substantial, given that greenhouse gas emissions through consumption of petroleum products would continue whether or not the projects anticipated in this EIS happen or not	The CEQ's guidance on consideration of greenhouse gases is in draft and has not been implemented yet. Executive Order 13783 does not provide direction on analyzing impacts on greenhouse gases.

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Bruno	Jeff	State of Alaska	29317	94	Petroleum Resources	Page #: F-10 Table or figure: Point Thomson Reviewer Name/Agency: ADNR Comment: "… is shipped via a 22-mile oil pipeline to Pump Station 1 on the Trans-Alaska Pipeline". This is inaccurate. Point Thomson oil is shipped via a 22-mile oil pipeline to connect into the Badami oil pipeline. The oil eventually transits Pump Station 1, but there is not a direct connection from the Point Thomson pipeline to PS1. Suggestion if applicable: Change text to note that Point Thomson oil is shipped to a tie-in with the Badami oil pipeline	The Final IAP/EIS was updated.

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McGuire	Rebecca	Alaska Shorebird Group	27169	15	Petroleum Resources	Although Alternative B appears to be the most conservation-oriented approach to management of the NPR-A, the designation is misleading, because it allows the construction of two north-south pipeline corridors connecting the Trans-Alaska Pipeline to future State offshore oil developments in Smith and Harrison Bay. Similarly, Alternative C would allow one north-south pipeline and Alternative D would not have any limits since the entire Teshekpuk Lake Special Area would be opened to development. Unlike the 2013 Record of Decision, these pipelines (under all alternatives) would not be prohibited from the core Teshekpuk Lake Special Area.61 We recommend going back to the 2013 IAP approach for restricting future pipeline construction connecting the Trans-Alaska Pipeline and offshore oil leased tracts to an area OUTSIDE of the core Teshekpuk Lake Special Area. The construction of any north-south pipeline will provide denning, nesting, and perching habitat for predators, but more importantly it will provide the starting point from which additional developments might be built in the future. 61 2013 NPR-A IAP Record of Decision, Chapter 1, Figure 1, p. 3.	Pipeline corridors under all action alternatives are necessary to provide access to state and federal offshore leases. Alternative A considers prohibiting pipelines in the core Teshekpuk Lake Special Area and could be adopted in a ROD. Any analysis that considers a pipeline route will consider mitigation measures to minimize impacts on wildlife. Under Alternative B. development connecting to a pipeline corridor in the Teshekpuk Lake Special Area would be prohibited.

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Donahey	Leah	Alaska Wilderness League	29320	36	Petroleum Resources	As BLM has previously recognized in the context of the GMT-1 decision and the RMS, the existing lease stipulations and other mitigation measures have not been sufficient to fully address significant impacts to subsistence and other values; that is why BLM can and should consider compensatory mitigation as a tool to better address the impacts that are not otherwise addressed through existing mitigation measures.	Except as required by law, BLM policy prohibits imposing compensatory mitigation on public land users. Subsidizing subsistence users would fall under compensatory mitigation.
Donahey	Leah	Alaska Wilderness League	29320	30	Petroleum Resources	BLM's analysis of mitigation measures is deficient for multiple reasons. First, BLM relies on vague or conclusory statements regarding effectiveness of mitigation measures, without describing how the measures will actually reduce adverse impacts. Additionally, BLM's mitigation measures hardly vary between alternatives, making comparison of their effectiveness at reducing adverse impacts meaningless. Further, BLM leaves the door open to granting waivers, modifications, and exceptions from its stipulations, which is not reflected in its NEPA analysis. Additionally, BLM fails to adequately identify and analyze meaningful additional mitigation measures beyond those contained in the 2013 IAP, which is critical given the failure of existing lease stipulations and best management practices to actually mitigate the serious impacts of oil and gas activities on Reserve resources and uses.	The BLM can issue waivers only when the objective of the ROP can be met through other means. Waivers and deviations are analyzed at the project level. Additional mitigation measures are also considered as part of the NEPA analysis at the project level. Potential mitigation measures would reflect the most up-to-date standards at the time.

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Donahey	Leah	Alaska Wilderness League	29320	35	Petroleum Resources	In short, the draft EIS provides no analysis of or assurance that the mitigation measures it is considering will be effective or enforced. In light of these unanswered questions about the effectiveness and waivability of mitigation measures, BLM's repeated statement in the draft EIS that they will reduce impacts are misleading and violate NEPA.	The IAP/EIS includes ROPs designed to mitigate impacts of potential development. The BLM can issue waivers only when the objective of the ROP can be met through other means. Waivers and deviations are analyzed at the project level. Mitigation can also be part of permitting at the project level. These future projects would be subject to NEPA, and mitigation would reflect the most up-to-date standards at the time.
Donahey	Leah	Alaska Wilderness League	29320	37	Petroleum Resources	Compensatory mitigation is a well-established, reasonable, and appropriate tool that has long been used to limit damage to public lands. Despite that, the draft EIS fails to address compensatory mitigation as a tool for addressing impacts in the Reserve. Refusing to use that tool fails to meet FLPMA's requirement that BLM avoid unnecessary or undue degradation, and is contrary to BLM's statutory mandate in the NPRPA to provide for all measures that are necessary to mitigate against the foreseeable impacts of oil and gas activities. BLM must consider all forms of mitigation in the EIS and IAP.	Except as required by law, BLM policy prohibits imposing compensatory mitigation on public land users.

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Donahey	Leah	Alaska Wilderness League	29320	261	Petroleum Resources	There are numerous problems with BLM's decision to tier to the 2013 IAP in the DEIS. First, it is unclear from this vague set of statements precisely what BLM is tiering to and what it believes is still valid versus in need of updating in the 2013 IAP. Second, there are significant questions about the validity of the assumptions and analysis in the 2013 IAP in light of new information. Because of the amount of significant new information that has come out about the amount of oil reserves and the likely scale of development in the Reserve since 2013, it is inappropriate for BLM to tier its development scenario and impacts analysis to the 2013 IAP. BLM needs to revise its development scenario and related analysis to take into account new information about the likely scale of oil development in and around the Reserve.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference. The IAP/EIS incorporates by reference the broad overview of potential impacts from the 2012 IAP/EIS; however, it does not incorporate by reference any quantitative analysis resulting from the alternatives. The RFD scenario was prepared using the best available information at the time and has been updated with new information that has become available since the publication of the 2013 IAP.
Donahey	Leah	Alaska Wilderness League	29320	252	Petroleum Resources	The Development Potential Map Conflicts with Industry's Plans. North Slope Exploration, LLC purchased nearly one million acres of leases in the Medium Development Potential area in Map B-1. This area likely should have been classified as High Development Potential on Map B-1. The area where North Slope Exploration purchased leases is not discussed in the RFDS.	The development potential map has been updated to include the acreage leased by North Slope Exploration, LLC. Based on the best available geologic information, some of the area leased is highly speculative and was not changed to high development potential.

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Donahey	Leah	Alaska Wilderness League	29320	257	Petroleum Resources	Gas Release Quantities from Incidents Need to Be Referenced. DEIS Chapter 3 describes the impacts of oil and gas releases. It states that a natural gas well blowout likely will release approximately 10 million cubic feet of natural gas and a natural gas release from a gas pipeline or processing facility would release approximately 20 million cubic feet of gas.397 But it does not appear that natural gas releases are carried forward into the impacts analysis itself. These values need to be referenced as well as the probability of occurrence of each of these incidents over the lifetime of NPR-A developments calculated, and the resulting impacts analyzed, in the draft EIS. --------- 397 1 DEIS at 3-41.	See Appendix I, Spill Projections for the National Petroleum Reserve in Alaska Integrated, for the probabilities of gas releases. The environmental consequences in the Final IAP/EIS have been updated to account for gas release.
Garrard	Richard	Borealis Alaska Oil, Inc.	26145	1	Petroleum Resources	Further oil accumulations almost certainly exist to the west into an area that in 2013 was designated by the BLM as “unavailable for leasing.” This situation needs to be rectified in order to allow further exploration and development to take place in this highly prospective part of the NPR-A. As a result of the 2013 IAP/EIS more than 60% of the Barrow Arch became removed from further leasing despite the fact that large areas had been covered by modern 3-D seismic and exploration wells drilled as part of the DNR/DOR tax credit program. This information is now available in the public domain - but the area is no longer leasable.	Alternative D considers opening these areas to oil and gas leasing.

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Monsell	Kristen	Center For Biological Diversity	27356	6	Petroleum Resources	The Draft EIS Fails to Analyze the Direct, Indirect, and Cumulative Impacts from Hydraulic Fracturing and Other Extreme Oil Extraction Techniques Hydraulic fracturing ("fracking") and other forms of extreme oil extraction can cause environmental impacts beyond that of conventional oil and gas development because of the dangerous chemicals used in the practice, additional waste generation and management needs, and the heightened risk of earthquakes, among other harms. BLM acknowledges that oil and gas operations in the Reserve involve the use of fracking,282 yet BLM's Draft EIS fails to disclose and analyze the direct, indirect, and cumulative impacts of fracking and other forms of extreme oil extraction. Its failure to do so renders its Draft EIS unlawful.283 282 See Draft EIS, Vol. 1 at3-26 (acknowledging noise impacts from "hydraulic-fracturing equipment" under Alternative A); id. at 3-71 (acknowledging production involves the use of large amounts of water to frack). 283 See Los Padres ForestWatch v. U.S. Bureau of Land Mgmt., No. CV-15-4378-MWF, 2016 U.S. Dist. LEXIS 138782 (C.D. Cal. Sept. 6, 2016) (holding that the "hard look" required by NEPA "necessarily requires [BLM]to address the unique risks and concerns associated with fracking" and the agency's failure to do so rendered an EIS on an oil and gas lease unlawful); San Juan Citizens All. v.	Hydraulic stimulation will occur only in the initial stage of drilling, to stimulate flow at the production wells; it is not used for continued production during the life of the well. Oil formations in the NPR-A are conventional sandstone formation and do not require continuous hydraulic fracturing, like unconventional shale formations in the lower 48. All hydraulic stimulation activities will comply with Alaska Oil and Gas Conservation Commission (AOGCC) regulation found in 20 AAC 25.283. As of July 2018, there were no reports to AOGCC of increased seismicity on the North Slope or contamination of drinking water resulting from fracturing operations.

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	U.S. Bureau of Land Mgmt., 326 F. Supp. 3d1227, 1254 (D.N.M. 2018) (setting aside leases due to NEPA violations where BLM failed to evaluate, inter alia, the volume of water that would be used for hydraulic fracturing operations); Ctr. for Biological Diversity v. Bureau of Land Mgmt., 937F. Supp. 2d 1140, 1157 (N.D. Cal. 2013) (BLM could not rely on2006 RMP/FEIS to demonstrate that impacts of decision to lease were adequately analyzed because the “emergence of fracking raises potential concerns that were not considered by the 2006 PRMP/FEIS.”). Disclosing and analyzing these impacts is particularly important considering the wealth of new information that has become available since development of the 2013 IAP indicating the numerous, significant harms inherent in these practices. The agency's failure to analyze the impacts of increased risk of water and soil contamination, harmful air pollution, induced seismicity, and increased harm to worker safety are particularly glaring.	*(see above)*
Lavin	Pat	Defenders Of Wildlife	29308	5	Petroleum Resources	the “no leasing” area contains lease tracts that are already sold, including some sold in the December 2019 lease sale.	The Final IAP/EIS was updated to include all current information about the 2019 lease sale.

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Lavin	Pat	Defenders Of Wildlife	29308	7	Petroleum Resources	In Appendix D, BLM states that it “reviews and approves applications for permits to drill (including drilling plans and surface-use plans of operations) and subsequent well operations (43 CFR 3160) for development and production on federal leases . . .” This should instead read that BLM approves or disapproves these submissions, or approves them with appropriate modifications or conditions.	The Final IAP/EIS was updated.
Lavin	Pat	Defenders Of Wildlife	29308	8	Petroleum Resources	BLM should define what “certain rights” are conveyed at the lease sale stage. Particularly since BLM staff have represented to Alaskans that the “No Action” alternative cannot possibly be selected when a lessee proposes an actual development project, BLM should directly address this issue. Also, if BLM believes that it conveys any rights to develop that override its regulatory authority and obligation described above, then it should explain why.	Chapter 1 in the Final IAP/EIS has been updated.
Obed	Sarah	Doyon, Limited	27862	2	Petroleum Resources	The changes in drilling technology and well design also have resulted in smaller well pads on Alaska's North Slope. Today's well pads are now 70 to 88 percent smaller in acreage than three decades ago. As noted above, the number of pads needed to access a field has fallen by up to 70 percent. In East Texas in the early 1900s, the surface footprint of oil development was 140,000 acres to produce 5.2 billion barrels of oil from 30,340 wells. By 1969 at the original Prudhoe Bay field in Alaska, 19,000 acres were required to produce	The IAP/EIS has been updated to note that technological changes could result in reduced impacts on other resources in the planning area. The IAP/EIS will continue to use disturbance acreages derived from recent developments in order to avoid underestimating potential impacts in order to avoid having to amend the IAP/EIS in the future.

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(see above)	*(see above)*	*(see above)*	*(see above)*	2 *(cont.)*	*(see above)*	11.9 billion barrels from 3,000 wells. By the time industry developed the Alpine field in Alaska in 2000, only 97 acres were required to produce 450 million barrels of oil from 116 wells - the footprint being less than 0.5 percent of the productive area. The Tarn oil field at Prudhoe Bay was finished in 1998 and required a gravel pad of just 6.7 acres. The newest development at Oooguruk at the Kuparuk River Unit consists of a 6-acre drill site holding 50 wells and just a 1.5-acre onshore facility to help transport oil back to the main Prudhoe Bay pipelines. Recent development by Eni at Spy Island, the Nikaitchuq deposit, has allowed 52 wells with related oil processing facilities to be drilled from a pad about 11 acres in size. Doyon's Rig 15 has drilled all of those wells. It has been on Spy Island since 2009. DDI currently is modifying Rig 15 to allow it to drill up to 35,000 feet horizontally to further extend the reach of wells drilled from Spy Island. The implications of these and other technological developments for the footprint and impacts of future development within the NPR-A are substantial and should be reflected in BLM's assessment and development of the revised IAP. BLM recognizes this to at least some extent in the Draft IAP/EIS: "Advances in technology, such as the use of rolligons, ice roads, snow trails, and ice pads, would mitigate damage to the tundra and floodplains. The use of a single pad	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	2 *(cont.)*	*(see above)*	and horizontal drilling to drill multiple well bores would reduce disturbance to floodplains and is a more efficient use of water for drilling fluids and reinjection." Draft IAP/EIS, p. 3-75. In developing the final IAP, BLM should more fully consider the implications of these technological developments on the potential impacts of oil and gas leasing and development and other activities in the NPR-A, and the extent to which modern technologies allow the agency to make additional acreage available for oil and gas leasing and new infrastructure, subject to appropriate terms and conditions. Similarly, BLM should take into account new technologies that allow exploration activities to be undertaken with substantially reduced impacts to wildlife and the environment. Modern oil and gas exploration in Alaska leaves almost no permanent trace until development for production. Three dimensional seismic testing allows oil to be located more accurately, reducing the need for exploratory well drilling. This results in fewer "dry holes" and less physical surface disturbance. The oil industry in Alaska uses ice roads and ice pads to support winter-only exploration drilling programs, leaving the surface land largely unaffected once the program is complete and the equipment has been removed.	*(see above)*

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Obed	Sarah	Doyon, Limited	27862	1	Petroleum Resources	In evaluating the potential environmental impacts associated with a revised Integrated Activity Plan ("IAP"), it is important that BLM take into account the extent to which the use of new technology will help minimize the footprint and impacts of new oil and gas development in the NPRA, allowing for increased oil and gas leasing and development activity while still ensuring protection of surface resources. When oil companies developed Alaska's Prudhoe Bay oil field in the early 1970s through the 1980s, they had to drill wells straight down and the spacing of the wells on the surface was usually about 120 feet. The roughly 3,000 wells sunk at Prudhoe Bay and their spacing caused the surface development there to affect about 19,000 acres. Technological advances made since the Prudhoe Bay oil field's development in the 1970s have resulted in increased oil recovery rates from fewer oil wells with far smaller surface impacts as a result of fewer and smaller drill pads. The technology has resulted in dramatically less overall surface disturbance, meaning far less impact on wildlife habitat and other resources. Several critically important developments in drilling are the use of directional, extended reach, and multi-lateral drilling. Those techniques allow wells to be drilled in all directions from a well pad, like spokes on a bicycle wheel. Today's drilling rigs can easily drill wells from a single pad that can access	The best available technology and practices are included in the hypothetical development scenario.

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(see above)	*(see above)*	*(see above)*	*(see above)*	1 *(cont.)*	*(see above)*	over 100 square miles. That means that pads can be spaced up to ten miles apart and habitat between pads can be protected with little or no surface disturbance.	*(see above)*
Carlo	Sydney	Fairbanks	27295	1	Petroleum Resources	Who's to say how much an oil spill will affect in these areas, in the waterways that they're all connected to, and the animals. Even if it does change a part of caribou migration system, is it saying why? Is it because of an oil spill? Are we taking that into incorporation? Because that's something that's bound to happen when exploring this area.	The potential for oil spills is evaluated in Appendix I. Impacts of oil spills on various subsistence resources is evaluated in Section 3.4.3.
Cole	Julie	Fairbanks	27299	1	Petroleum Resources	I was curious about whether the plan has any criteria or standards about what an essential road or pipeline would be, or are you going to consider every single proposal for a road or pipeline that would go across the special areas, or do you have some kind of criteria that it would have to meet before it would be considered?	Essential road and pipeline crossings are defined as "off lease infrastructure that cross perpendicular to the closed area." The BLM would consider applications for essential road and pipeline crossings on a case-by-case basis.

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Perry	Sharla	Fairbanks	27331	1	Petroleum Resources	I'm just curious how much fracking is anticipated in our traditional homeland through this plan, and what regulations are in place to protect our families and animals from groundwater and water pollution on our homelands? Another concern I have is the melting Arctic permafrost crisis we currently have going on in my village of Point Lay, Alaska, as well as surrounding Arctic communities. In my village, around 80 percent of the residents in Point Lay have recently had the ground drop below their homes, and from the looks of it, in 10 years, the houses may topple over and fall apart. Does the BLM intend to help with the stabilization of homes in the surrounding communities that will be affected by oil and gas activities? With our current situation, there is no known solution in sight, but what I am seeing is environmental racism, as our food, water, and land are currently destabilizing.	Hydraulic fracturing will occur only in the initial stage of drilling to stimulate flow at the production wells and is not needed for continued production during the life of the well. All hydraulic fracturing activities will comply with the Alaska Oil and Gas Conservation Commission (AOGCC) regulation found in 20 AAC 25.283. As of July 2018, there have been no reports to AOGCC of increased seismicity on the North Slope or contamination of drinking water resulting from fracking operations. Oil formations in the NPR-A are conventional sandstone formation and will not require continuous hydraulic fracturing, like unconventional shale formations in the lower 48. Except as required by law, BLM policy prohibits imposing compensatory mitigation on public land users. Stabilization of homes would fall under compensatory mitigation.

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Yarnell	Ron	Fairbanks	27334	1	Petroleum Resources	Basically, under the existing situation, 50 percent of the refuge, roughly, was closed -- supposedly closed to oil exploration and development. And most of that 50 percent is not even in the oil province. So why are you opening, what was it, 70 or 80 percent in C and D of an area that's not even in the oil province? I think oil is a liquid and if there's no liquids under 50 percent of the property -- 50 percent of the land, why is that 30 percent or 40 percent being opened? So I don't understand that part of it. Why is so much of the refuge being proposed to be open and it's not even in the oil province?	The most highly perspective areas of the NPR-A are along the Barrow Arch Formation, which occurs within 25 miles of the coast. Alternatives C and D look at opening this area for leasing and development.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	13	Petroleum Resources	Kuukpik is deeply concerned that standard best practices won't be good enough given the importance of this area for the Teshekpuk Caribou Herd and subsistence users throughout NPR-A. If a pipeline can be constructed in this area at all (which Kuukpik does not currently support), it would need to include even higher mitigation measures than normal.	Mitigation can also be part of permitting at the project level. Any proposed pipeline would be subject to NEPA analysis, and mitigation would reflect the most up-to-date standards at the time.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	15	Petroleum Resources	a pipeline near Teshekpuk Lake would probably need to be roadless. Long stretches of the Alpine Pipeline do not include a permanent gravel access road, a decision that was made in part to reduce the visual and physical barriers to migrating caribou. Although access roads are convenient for industry, they undoubtedly increase the impacts compared to a standalone pipeline. 30 In addition, such a road would likely facilitate nonindustry traffic through this area that would not only be very disruptive, but could create competition for resources in key Nuiqsut and Utqiagvik subsistence areas. In short, although Kuukpik does not support a pipeline in this area at all, a roadless pipeline would almost certainly reduce impacts significantly. The Final EIS should examine this question, or at least acknowledge it, because further analysis will be needed to determine whether a roadless Teshekpuk pipeline would end up being preferable. 30 2019 NPR-A IAP DEIS, p. 3-166 ("Delays or deflections are more likely in areas where pipelines are adjacent to roads (<500 feet) and in areas with high traffic ... "); 2019 NPR-A IAP DEIS, p. 3-167 ("Several studies have reported longer-term delays during road crossings during migratory movements."). Note this study was published in 2016, further demonstrating that recent studies confirm the need for maintaining at least the current	The pipeline corridors considered under Alternatives B and C do not allow for roads.

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(see above)	*(see above)*	*(see above)*	*(see above)*	15 *(cont.)*	*(see above)*	protections, if not strengthening them. Also, we note that the Draft states elsewhere that "Properly designed and elevated pipelines not associated with roads do not appear to have large impacts on caribou midsummer movements although caribou may parallel the pipelines before crossing them (Prichard et al. 2018)." 2019 NPR-A IAP DEIS, p. 3-164. While this statement supports Kuukpik's position that a roadless pipeline would have less impacts than a road-accompanied one, the Draft cites it as support for the more general proposition that pipelines have limited impacts on caribou. But it doesn't support that point because nearly all pipelines constructed under this IAP will be accompanied by an access road. So conclusions about "pipelines not associated with roads" don't apply to the vast majority of pipelines under consideration. In fact, the more relevant studies are those listed above that show significant impacts of pipelines and roads on caribou movements.	*(see above)*
Fisher	Kevin	North Slope Borough	29290	2	Petroleum Resources	the Smith Bay and Sinclair Lake region between Dease Inlet and Smith Bay should be made available to leasing. Sinclair Lake has natural oil seeps and could benefit from development if cleanup and containment of these seeps occurs.	Under Alternative D the mentioned area would be open to leasing, with a NSO stipulation. It should be noted that surface oil seeps may not indicate the existence of a large reservoir that would be necessary to support development.

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Tukrook	Fred	Point Lay	27332	2	Petroleum Resources	I'd like to let you know that also there's a lot of those metal caps out there that are -- got tied to Washington, D.C., if anything happens to any of those metal caps. Is it our responsibility to make sure that they don't leak or is it your responsibility, that's the Bureau of Land Management throughout the state of Alaska. There's a lot of those metal caps out there.	The BLM is responsible for overseeing plugging and abandonment of wells drilled on BLM-managed land. Modern wells are plugged with at least 50' of cement, and there is very little risk of damage to the well plug; they are not routinely inspected. Orphan well inspections are done by researching lat/longs from existing databases, as well as any record available on those wells. Once all data is compiled, the location is accessed by ground (truck or UTV) or by air (helicopter). Once the well is discovered, its condition and properties (open hole, wellhead, cement to surface) are verified.

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Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	1	Petroleum Resources	Given NPR-A was specifically designated by Congress for the production of energy resources, it is important the BLM provide access to prospects with the highest potential. North Slope oil and gas deposits have occurred almost exclusively within a 25-mile strip of the Beaufort Sea coastline - a geologic structure known as the Barrow Arch. Several large discoveries have been announced in recent years within the arch in two little-explored reservoirs that extend into the energy reserve - the Nanushuk and Torok formations. Exploration efforts targeting the Nanushuk formation in 2015 resulted in a major discovery in the Pikka Unit, an area comprised of State of Alaska leases north of the village of Nuiqsut. Two wells drilled in 2017 at a prospect known as Horseshoe showed new evidence of a large find that extended the already huge Nanushuk play by an additional 20 miles. The Horseshoe wells confirmed the Nanushuk reservoir as a significant emerging opportunity on the North Slope and a potential game changer with approximately one billion barrels of conventional oil. Geologists believe the discoveries in the relatively shallow reservoir increase the likelihood of large oil discoveries in NPR-A	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.” The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.

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Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	3	Petroleum Resources	In December 2019, BLM held yet another successful lease sale in the NPR-A, generating $11,268,709; with the State of Alaska entitled to 50%. According to the Alaska Journal of Commerce, other than 2016, when companies spent $18.8 million on leases, it is the largest collective bid amount for an NPR-A lease sale since 2008. The results of the State's December 2019 lease sale were similarly major, with a combined $7.8 million in bids for areas in the Beaufort Sea and North Slope sales. The results of these sales signal industry's continued interest and commitment to developing Alaska's great resource potential. BLM should include these results in their analysis, recognizing that continued leasing with reasonable terms provides a significant source of revenue to the BLM, State of Alaska, and local communities. A revised IAP for the NPR-A aligned with the directive under Secretarial Order 3352 will ensure this trend continues.	The Final IAP/EIS has been updated.
Lubetkin	Susan	–	27324	69	Petroleum Resources	BLM. 2004. Alpine Satellite Development Plan Final Environmental Impact Statement, Section 4. Environmental Consequences. Even if all the spill analyses cited from this document were perfect, these data are at least 15 years old. While the data should be a part of ongoing modeling of spill risk rate estimates, they should be augmented with up to date spill data and not taken at face value. In Volume 1, Section 4.3.1 (pp 369-372), the Impacts of	Spill analyses from older documents were used as background on the history of spills and spill analysis. The occurrence of a single 212,252-gallon spill does not disprove the statement that the probability of a very large spill over 100,000 gallons is low. The possibility of a spill still exists, given a low probability of occurrence.

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(see above)	*(see above)*	*(see above)*	*(see above)*	69 *(cont.)*	*(see above)*	Oil, Saltwater and Hazardous Material Spills are summarized: "Spills are not a planned activity for any alternative. Spills are generally unpredictable in cause, location, time, size, duration and/or material type (Mach et al. 2000)" (Vol. 1, p. 369). "[B]ased on the empirical evidence of the North Slope oil companies as well as the experience of oil field operations in the contiguous United States, … the probability of a very large spill over 100,000 gallons [238 barrels] is low" (Vol. 1, p. 371). And then there was a spill of 212,252 gallons in Prudhoe Bay in 2006. (See Note in Section 6a of this comment.) In Volume 1, Section 4.3.2.1, 4.3.2.2, and 4.3.2.3 (pp 372-379), the Introduction, History of North Slope Spills, and Basic Assumptions for Spill Impact Assessments are given, respectively. " A key conclusion of Maxim and Niebo (2001a, b, c) is that, although oil and salt water spills on the North Slope continue to occur and the total volume of oil fluctuates substantially, there is nevertheless a general decreasing trend over a 30-year oil-field operating history in the total volume of oil spilled….Maxim and Niebo do not analyze the trends in the number or size-frequency of spills, especially the smaller volume ones, partly because of the changes in the way spills have been reported over the 30-years-plus record and partly because the important environmental variable, in their opinion, is the volume spilled"	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	69 *(cont.)*	*(see above)*	(Vol. 1, pp. 372-373). Mach et al. (2000) reviewed several data bases on oil spills that took place on the Alaska North Slope, Arctic Canada, and the Trans-Alaska Pipeline between 1970 and 1999. Their analyses found 126 spills greater than 4,200 gallons [100 barrels], with 111 of them in Alaska. Nine North Slope spills were greater than 21,000 gallons [500 barrels] … '[S]tatistical analysis of individual spill volumes [did not indicate any correlation with location], facility type, oil type, affected [environment], and spill cause' " (Vol. 1, p. 373). "A review of the ADEC spill database from January 1, 1995, to August 18, 2003, … for the North Slope shows 3,673 spill records including oil, salt water, … and other hazardous materials, as well as a few 'freshwater' spills. The database is probably a fair representation of the type, size, location, and causes of spills that one might expect from North Slope oilfield operations in the near future" (Vol. 1, p. 373).	*(see above)*
Lubetkin	Susan	–	27324	35	Petroleum Resources	Table 11. Calculations for the number of years the production may continue for Alternatives AD.	Under Table 11, the IAP/EIS states "For the projections, development life is assumed to be 50 years."

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McCown	Brigham	–	27239	1	Petroleum Resources	As the Bureau continues the planning process for the NPR-A, we ask that you consider the benefit that TAPS provides to our nation's energy policy, and the importance the energy resources in the NPR-A and elsewhere on the North Slope of Alaska may have to TAPS' continued contribution to the United States' energy policy and security.	The geographic scope for the economic analysis of this EIS was focused on state, regional, and local effects. Text was added in the cumulative effects section to note that increased TAPS throughput would increase State royalty revenue.

Z.3.29 Public Health

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Donahey	Leah	Alaska Wilderness League	29320	250	Public Health	BLM's discussion of mental health should also be improved and based on better information. BLM should begin by analyzing and describing the mental health impacts of the numerous planning processes currently underway within the region. These plans include, among others, the Arctic National Wildlife Refuge Coastal Plain EIS, the Willow EIS, the ConocoPhillips winter exploration EA, and the Nanushuk Project. In addition to the impacts of BLM planning, the EIS must also articulate the potential psychosocial stresses associated with leasing, exploration, construction, and operation of oil developments within the region. Here, attention should be paid to how traditional values, cultural identity, food security, safety, risk of wellness, and overall health may be impacted by development.	The analysis includes a discussion of how increasing oil and gas development on the North Slope has affected the mental health of residents, both positively and negatively. The cumulative effects analysis includes the additional developments underway and in the planning process within the cumulative effects study area. The analysis uses the best available data; however, the population of the North Slope Borough is small. When separated into villages, sample sizes decrease even more, making analysis of mental health at the granular level difficult; the results need to be interpreted with caution.

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Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	25	Public Health	The draft EIS fails to adequately consider the cumulative effects of PH and PAH contamination in the environment. In the years since the last study of these contaminants, construction, development, and ice roads have increased dramatically. BLM should not finalize a revision of the IAP until existing levels of contamination and the extent of additional contamination that could occur are understood.	The analysis includes a discussion of air pollutants and their effects on public health. In addition, the cumulative impacts section includes past, present, and future oil and gas developments in the cumulative effects study area and how air quality may affect public health. Air pollutant modeling would be conducted when a project is proposed, after the lease sales are completed. In addition, additional analysis of possible water pollution would be conducted during project-specific analysis.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	16	Public Health	We recommend that the Final EIS provide additional information disclosing the existing drinking water resources in the analysis area (both surface water and groundwater sources of drinking water) and analyze the potential for impacts to the quality or quantity of those resources. Section 3.4.12 Public Health states that, "[w]ater quality has the potential to affect the health of NPR-A residents through contamination of drinking water or through contamination of rivers and waterways near subsistence cabins or camps," and the Draft EIS notes that protection of drinking water was identified as a key issue during scoping.	The IAP/EIS, Section 3.2.11, Water Resources, includes the communities that have surface water and groundwater rights. The individual drinking water sources, including groundwater, surface water, and rain catchments, cover a large area and are not well documented. The BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific project details, such as impacts on all water supplies, other than on a general level. More specific analysis is required to protect drinking water when projects go through the permitting process.

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Donahey	Leah	Alaska Wilderness League	29320	246	Public Health	It is imperative that BLM prepare an updated health impact assessment (HIA). HIAs offer a systemic methodological framework for factoring public health concerns into decision making.1293 Widely used internationally, the use of HIAs is growing in the U.S. and in Alaska, increasingly as part of the NEPA process.1294 The NSB has been a leader in integrating HIA into the Environmental Impact Assessment process for natural resource development in Alaska.1295	While HIAs can aid the NEPA analysis for certain types of actions, they are not required. Agencies have discretion on how to analyze health impacts.
Donahey	Leah	Alaska Wilderness League	29320	249	Public Health	BLM makes the statement that strong social ties could possibly mitigate some of the impacts of oil development.1315 While this is potentially true, BLM fails to acknowledge that the factors and systems which create such strong ties are foundationally connected to traditional practices and the health of the ecosystem. As a result, BLM is relying on a set of circumstances to mitigate the impacts of development that may, in fact, be compromised by oil development.	Both the resiliency and vulnerability of subsistence-based economies are addressed in the subsistence analysis, including the cumulative analysis. The analysis notes that, despite their resiliency, communities are vulnerable to large-scale changes in resource availability, in addition to other impacts.

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Donahey	Leah	Alaska Wilderness League	29320	247	Public Health	The geographic scope of BLM's analysis is inconsistent and should be expanded to a meaningful scale. BLM largely justifies its use of North Slope Borough health data by saying that the RFDS is for the eastern portion of the Reserve.1306 However, when talking about infectious diseases, BLM cites data from the Northwest Arctic Borough.1307 Moreover, BLM acknowledges that human health is related to the region's ecological and social systems, and that the geographic scale of these processes are widespread. However, BLM fails to consider how these determinants of health may be compromised by increased leasing and development in the Reserve. Oil development's impacts on the Teshekpuk Caribou Herd in the northeast NPR-A, for example, have the potential to impact the health of residents of Anatuvuk Pass, even though this community is over 100 miles away. Here, impacts such as reduced herd size or altered migration patterns could impact the food security, mental health, and/or social networks of Anatuvuk Pass residents. These and similar types of widespread health connections must be analyzed by BLM.	The IAP/EIS uses the best available science for an area with low population to show public health trends. The Final IAP/EIS includes an analysis of the community of Anaktuvuk Pass and how it is particularly vulnerable to changes in the availability of caribou and potential detrimental changes to diet and nutrition.

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Donahey	Leah	Alaska Wilderness League	29320	251	Public Health	BLM fails to consider new research pertaining to the direct impacts of oil development on human health. For example, a recent review article in the journal Science of the Total Environment found that the current evidence suggests potential health impacts due to exposure to upstream oil extraction includes cancer, liver damage, immunodeficiency, and harm to neurological systems.1318 Moreover, a recent study by McKenzie et al. found "further evidence of a positive association between maternal proximity to oil and gas well site activities and several types of congenital heart defects, particularly in rural areas.1319 Within the EIS, BLM must also describe these types of risks.	The analysis uses the most up-to-date and current research on oil and gas development and chronic diseases. Additional site-specific analysis, including a health impact assessment, may be conducted when specific projects are proposed and after lease sales are conducted. Such an analysis would likely consider these noncommunicable chronic diseases (e.g., cancer).
Donahey	Leah	Alaska Wilderness League	29320	248	Public Health	BLM must also elaborate on how a shift, caused by oil development, from traditional foods to store-bought foods may impact residents' health.1310 Specifically, BLM should describe how the diminishment or loss of traditional foods could compromise nutrition and lead to other health outcomes, such as obesity and diabetes.1311	The analysis includes the shift observed in Native communities from traditional foods to store bought foods and how that may lead to obesity, diabetes, and other public health concerns.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	245	Public Health	BLM's public health analysis lacks rigor and should be significantly expanded and improved upon in order to provide the public with a more thorough understanding of the health dangers of oil development in the NPR-A. Greater attention should be paid to the complex ecological and social systems that contribute to the determinants of health and their associated feedbacks in the Arctic's mixed cash-subsistence economy.	The analysis includes a discussion of the interconnected nature of subsistence, food security, economic factors, and public health in Native communities. It also includes a discussion of the complex interaction of economic factors, both positive and negative, and their potential impacts on public health on the North Slope. Additional site-specific analyses, including a health impact assessment, would be conducted when specific projects are proposed and after lease sales are conducted.
Monsell	Kristen	Center For Biological Diversity	27356	9	Public Health	The Draft EIS fails to take the requisite hard look at the direct, indirect, and cumulative impacts from fracking on worker health and safety. Studies show that workers suffer high risks from toxic exposure and accidents.338 For example, one study of the occupational inhalation risks caused by emissions from chemical storage tanks associated with fracking wells found that chemicals used in 12.4 percent of wells posed acute non-cancer risks, chemicals used in 7.5 percent of wells posed acute cancer risks, and chemicals used in 5.8 percent of wells posed chronic cancer risks.339 As one study described: 338 Esswein, Eric J. et al., Occupational Exposures to Respirable Crystalline Silica During Hydraulic Fracturing, 10 Journal of Occupational and Environmental Hygiene 347 (2013); Esswein, Eric et al., Evaluation of Some Potential Chemical Exposure Risks during Flowback Operations in Unconventional Oil and Gas Extraction: Preliminary Results, 11 Journal of Occupational and	The analysis of safety impacts on industry employees would be included in project-specific NEPA analyses after lease sales are completed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	9 *(cont.)*	*(see above)*	Environmental Hygiene D174 (2013); Harrison, Robert J.et al., Sudden Deaths Among Oil and Gas Extraction Workers Resulting from Oxygen Deficiency and Inhalation of Hydrocarbon Gases and Vapors – United States, January 2010-March2015. 65 MMWR Morb Mortal Wkly Rep 6 (2016); PSR 2019. 339 Chen, Huan & Kimberly E. Carter, Modeling potential occupational inhalation exposures and associated risks of toxic organics from chemical storage tanks used in hydraulic fracturing using AERMOD, 224 Environmental Pollution300(2017).	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	22	Public Health	Page 2-8 ROP A-2 Waste Management Plan ROP A-2. BLM should revise this requirement to clarify use of bear-resistant containers is for food wastes and is required “when practicable”. Use of bear-resistant containers for “all phases” of exploration, development, and production is impracticable for some work. For example, seismic camps typically do not use bear-resistant containers because work is conducted during winter when the likelihood of bear interactions is low. Existing waste best management practices in these cases has proven effective and acceptable by regulators. Bear-resistant containers are impracticable for some waste classes that are non-foods and do not attract bears such as construction and demolition (C&D), metals, wood, drill cuttings, etc.	ROP A-2 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	23	Public Health	Page 2-9 ROP A-4 d Fuel containers... shall be marked with... year filled or purchased. BMP A-4 e. or ROP A-4 d. BLM should remove the requirement pertaining to marking fuel containers. The requirement to mark a fuel container with year filled or purchased is impractical and provides little environmental protection over spill prevention requirements that require routine tank integrity inspections under 40 CFR 112. Some fuel containers are filled routinely; marking on a container each time it is filled is unnecessarily burdensome. Marking fill date on a container or tank is not a typical or common practice. This requirement imposes a compliance burden with no commensurate environmental protection.	ROP A-4 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	26	Public Health	The draft EIS's analysis of human health impacts is inadequate. BLM's analysis of public health impacts is inadequate. Most fundamentally, the draft EIS fails to address the interconnected nature of subsistence, food security, and public health in our community. The draft EIS downplays the risk of pollutants entering our water sources and contaminating fish and other resources, and ultimately harming community members who eat the contaminated resources. BLM's assertions that current levels of contamination of traditional food and water supplies are low, and that significant contamination will occur only in the event of a major spill or accident are unsupported.51 Moreover, as the 2012 Repsol blowout demonstrated, significant spills or accidents may well occur and could have very serious health consequences for our community. The draft EIS also provides very little analysis of the mental health impacts of increasing development around our community. In particular, BLM fails to consider the mental health impacts of the numerous planning processes currently underway within the region, or to accurately describe the stresses associated with leasing, exploration, construction, and operation of oil developments. BLM must consider how risk of pollution, loss of access to culture and traditions, and changes to food security can effect mental health in the community. 51 Draft EIS at 3-228, 3-323.	The analysis includes a discussion of the interconnected nature of subsistence, food security, and public health in Native communities. It also includes a discussion in the cumulative impacts section of mental health impacts of potential developments in the region. Additional site-specific analysis, including a health impact assessment, may be conducted when specific projects are proposed and after lease sales are conducted.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	27	Public Health	The draft EIS also fails to include an updated health impact assessment (HIA). The cumulative effects of oil and gas activities are not well understood and are likely very significant. A thorough and complete HIA is a necessary for BLM to appropriately factor public health concerns into its decision.52 Our community has repeatedly asked for this analysis to occur, and we expect a thorough analysis to be completed as part of this process. The HIA must comprehensively study the risks of oil development and its impacts on important environmental, social, and cultural drivers of health. If our community is going to have faith in this assessment, the HIA must be completed by an independent third party with no conflicts of interest. 52 See National Research Council, Improving Health in the United States: The Role of Health Impact Assessment, Appendix A at 150-161 (2011), https://doi.org/10.17226/13229.	While HIAs can aid the NEPA analysis for certain types of actions, they are not required. Agencies have discretion on how to analyze health impacts.
Fisher	Kevin	North Slope Borough	29290	31	Public Health	Page 3-7 -Air Quality, Affected Environment * I would like to suggest having a sub-section before 'Affected Environment' about the impact of air quality on health. Other sections of the EIS, such as the Climate and Meteorology section "Factors Affecting Climate" have introductory paragraphs that explain the basics of the topic. Below is a suggestion for such an introductory paragraph: Breathing polluted air increases the risk of illness and death (cite: IHME (2016) The Cost of Air Pollution Strengthening the Economic Case for Action. The	The public health and safety section includes a section on air quality, and the pollutants emitted during fossil fuel combustion, and the potential for respiratory diseases. Air pollutant modeling would be conducted when a project is proposed and after the lease sales are completed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	31 *(cont.)*	*(see above)*	World Bank and Institute for Health Metrics and Evaluation University of Washington, Seattle, The Cost of Air Pollution Strengthening the Economic Case for Action). The IHME conducted a study in 2013 and found that premature deaths due to air pollution cost the global economy approximately $225 billion in lost labor income, with global welfare losses estimated to be $5 .11 trillion (cite: IHME (2016) The Cost of Air Pollution Strengthening the Economic Case for Action. The World Bank and Institute for Health Metrics and Evaluation University of Washington, Seattle, The Cost of Air Pollution Strengthening the Economic Case for Action). The 'Global Burden of Disease Study' published in the Lancet, estimates that exposure to PM2.s causes approximately 2.9 Million deaths (3% of all deaths) per year on a global scale (cite: Aaron J Cohen, Michael Brauer, Richard Burnett, H Ross Anderson, Joseph Frostad, Kara Estep, Kalpana Balakrishnan, Bert Brunekreef, Lalit Dandona, Rakhi Dandona, Valery Feigin, Greg Freedman, Bryan Hubbell, Amelia Jobling, Haidong Kan, Luke Knibbs, Yang Liu, Randall Martin, Lidia Morawska, C Arden Pope, Hwashin Shin, Kurt Straif, Gavin Shaddick, Matthew Thomas, Rita van Dingenen, Aaron van Donkelaar, Theo Vos, Christopher J L Murray, Mohammad H Forouzanfar (2017). Estimates and 25-year trends ofthe global burden of disease attributable to ambient air pollution: an analysis of data from the Global Burden of	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	31 *(cont.)*	*(see above)*	Diseases Study 2015, The Lancet, Volume 389, Issue 10082, 2017, Pages 1907-1918, ISSN 0140-6736). Because air pollution affects health in different ways throughout a person's life, there is no clear safe threshold of air pollution exposure. However, epidemiological evidence shows that when air pollution concentrations reduce below a certain concentration, then the risk of illness and death is greatly reduced, or may not even be distinguishable from normal causes of illness and death. Generally speaking, air quality standards are based upon this epidemiological evidence, the known environmental impacts of air pollution, together with what is realistically attainable in any given region of the world. The NAAQS and AAAQS are based upon this epidemiological evidence, known environmental impacts of air pollution in the US and Alaska respectively, and attainability of meeting the standards for the majority of the time, e.g. approximately 98% of the time the air pollution concentration is below the standard. The NAAQS and AAAQS are used to compare with air quality data observations in a given region/locale, and then used to guide policy decisions on air quality and management impacting sensitive receptors in that area. To date, air pollution observations on the North Slope are well below the NAAQS, AAAQS and hazardous air pollutant standards. Existing and projected air pollution concentration in this section will be compared with	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	31 *(cont.)*	*(see above)*	NAAQS and the AAAQS to put the air pollution data contained in this report into context.	*(see above)*
Fisher	Kevin	North Slope Borough	29290	41	Public Health	Page 3-314-Section 3.4.12 Public Health * There appears to be no discussion of the positive health impacts from oil development. The resources coming to the North Slope Borough because of oil development has radically transformed the quality of life on the North Slope. According to the Journal of the American Medical Association, life expectancy of Alaska Natives residing in the North Slope Borough has increased significantly (by 13 years) since the 1980s. This outcome is attributed to the discovery of the rich oil reservoirs in the region, which have since provided an economic base for the North Slope Borough and State of Alaska. At the local level, resource development has afforded health clinics in each village, a hospital on the North Slope, increased sanitation, reliable sewer, water, and heat, and emergency services. These amenities, individually and collectively, improve the health and wellbeing of our communities and are funded by continued resource development in our region.	The analysis in the Social Determinants of Health section includes the potential beneficial impacts on nutrition and mental health from increased employment and income. It also includes the potential for additional water, sanitation, and health care funding from additional oil and gas development.

Z.3.30 Public Outreach

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	10	Public Outreach	BLM has failed to meet its obligation to ensure adequate time and opportunities for public engagement. Multiple organizations and entities asked BLM at the start of the public comment period - nearly two months ago - for at least a 60-day extension. In the weeks leading up to the close of the comment period and at the public hearings, BLM repeatedly informed the public it was denying any extension requests, with no apparent reason for doing so.69 At noon Alaska, 4pm Eastern time on the day the comments were due, BLM announced via social media it would extend the comment period by fifteen days - until February 5. It is egregious that BLM led the public to believe there would not be an extension of the comment period and that BLM did not act on numerous extension requests until the absolute last minute. -------- 69 See, e.g., Email from Stephanie Rice, Bureau of Land Mgmt., to Suzanne Bostrom, Trustees for Alaska, re: Extension Request for NPR-A IAP/EIS Comment Period (Dec. 31, 2019) (“I've spoken with the State Director and the BLM will not be extending the comment period for the IAP/EIS.”).	Based on requests from the public and stakeholders, the BLM extended the comment period to a total of 75 days, 30 days more than required by CEQ regulations. The decision was announced as soon as it was made.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	56	Public Outreach	In the draft EIS, BLM indicated that it has held five meetings to date to consult with the NPR-A Working Group on the revised IAP.358 The public was not informed about the majority of these meetings and BLM has yet to inform the public about the content and recommendations made at these meetings, despite the fact that there is an outstanding FOIA request for that information. ------------ 358 1 DEIS at ES-8.	The NPR-A Working Group is not open to the general public, but instead consists of various representatives of North Slope local governments, Native Corporations, and Tribal entities. FOIA requests are processed in the order in which they are received.
Mayo	Gait	Arctic Audubon Society	29315	1	Public Outreach	Suggestion: The draft EIS acknowledges the uncertainty of planning for the future in the face of climate variance and knowledge Raps that are not evident today. We would like to propose an ongoing council of all stakeholders to assess new knowledge, arising problems and possible solutions. Two areas that would profit would be equitable mitigation measures, reclamation guidelines and changes to ROPs. If the council represents all interests from native subsistence families to tourists and those who need to know that wild free Lands exist as well as state, federal, and corporate stakeholders and operates on consensus it could be a way to account for new knowledge as well as new ideas.	The NPR-A Working Group has the ability to address these types of issues. In the ROD, the BLM may consider expanding the makeup of the NPR-A Working Group. Additional NEPA analysis and public participation opportunities will be provided for future on-the-ground activities. Such NEPA analyses will consider potential new mitigation measures, in addition to those adopted under the IAP/EIS ROD.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	27	Public Outreach	Length of Comment Period and Extension Requests ASRC is concerned that the local North Slope voices have not been properly heard as part of the NPRA Draft IAP public comment period. ASRC along with other North Slope entities requested an extension to February 14, 2020. This was to provide a little more time for Nuiqsut to have the tri-lateral meeting with BLM on February 4, 2020 - which is now rescheduled to sometime during the week of February 10th - after the comment period is closed. Other North Slope communities need to have the chance to listen to what the people of Nuiqsut had to say. This information could be valuable to the other villages in the NPRA (specifically Atqasuk Corporation) in helping them to provide meaningful comments based on their unique situations, but with the deadline on February 5th, this opportunity is lost.	Based on requests from the public and stakeholders, the BLM extended the comment period to a total of 75 days, 30 days more than required by CEQ regulations. Additionally, the BLM conducted Native consultation with North Slope Tribes and ANCSA Corporations, and the North Slope Borough and ICAS participated as a cooperating agency in the development of the IAP/EIS.
Lloyd	Rod	Atqasuk	27313	2	Public Outreach	My name is Rod Lloyd. How are these decisions weighted? I see you've got meetings going on in Fairbanks, which is really -- I feel this is a little bit out of the wheelhouse. I mean, it's all state land and federal land. How are the decisions weighted? Are their -- are their decisions equal to our decisions up here?	The agency developed a comment analysis method to ensure that all comments were considered, as directed by NEPA regulations.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Ahngasuk	Margaret	Atqasuk Corporation	29287	1	Public Outreach	Atqasuk Corporation makes the following suggestions for BLM to refine their IAP EIS: 1. Place a greater emphasis on ANCSA and government-to-government consultation; 2. Respect fellow landowners and work to enhance economic sustainability of comm unities; 3. Include framework for co-management with Alaska Native Landowners and opportunities for Native-owned land; 4. Create feasible opportunities for community interconnectedness.	In development of the Final IAP/EIS, the BLM is continuing consultation with ANCSA Corporations and has reached out to consult directly with the Atqasuk Corporation. The BLM will consider inclusion of an exception for community infrastructure in its ROD.
Baraff	Lisa	Fairbanks	27281	3	Public Outreach	BLM is rushing this process and not providing adequate time for meaningful participation by the people in communities most affected by the project, particularly, since the comment period overlaps the holiday season. A coalition of environmental indigenous groups submitted a letter requesting BLM extend the comment period by 60 days. The Native Village of Nuiqsut, North Slope Borough, and the Western Arctic Caribou Herd Working Group made similar requests. I would ask that BLM honor these requests and extend the comment period. Thank you. And sorry for the reading bit (indiscernible - away from microphone).	The public comment period was extended by 15 days.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Brodie	Shane	Fairbanks	27282	1	Public Outreach	Okay, if you want substantive comments, if you want people to be informed and knowledgeable about this, you need to extend this process. Okay, this public comment period needs to be much longer. A couple months, that's not enough. How about a year? How about several months? This is ridiculous. Also, this implies that if you're not an expert, you don't have a voice in this. Okay, most of the people who are going to be impacted by this, are not experts.	The public comment period was extended by 15 days.
Burns	Tara	Fairbanks	27294	1	Public Outreach	I'm asking you to extend the comment period and to reconsider this whole process. There's no reason to change the current plan. This process has been initiated and justified with lies. This is eroding people's faith in government and, ultimately, our willingness to be governed by this administration.	The public comment period was extended by 15 days.
Smyth	Julie	Fairbanks	27327	1	Public Outreach	I know I didn't get a chance to sit and read all of the pages. I believe there was over 1,000. And I didn't have the time to sit, especially since I, personally, was watching the impeachment process. But I know other people have been busy with other things, so I would like to have more time, especially since this is something that deeply affects my family.	The public comment period was extended by 15 days.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Adams	Jim	National Parks Conservation Association	29262	18	Public Outreach	BLM's timeline for revising the IAP is inappropriate and insufficient to allow for meaningful public involvement. BLM has stated that it intends to issue a final IAP/EIS in spring 2020 and is rushing toward that goal at the expense of public involvement and a thorough analysis. To meet its rushed goal, BLM allowed only a sixty-day comment period for this draft EIS overlapping Thanksgiving, Christmas, and New Year's holidays. A sixty-day comment period during the holidays is insufficient to meet BLM's NEPA obligations to provide robust participation by the interested public, given the sensitive resources, the complexity of the issues, and the analysis required. (The unexplained last-minute extension of fifteen days does little to alleviate these concerns).	Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, including time for preparing NEPA documents. The 15-day comment period extension was announced as soon as a decision was made.
Adams	Jim	National Parks Conservation Association	29262	18	Public Outreach	BLM's Process Is Insufficient to Meet the Requirements for Public Participation	Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, including time for preparing NEPA documents. The 15-day comment period extension was announced as soon as a decision was made.
Adams	Jim	National Parks Conservation Association	29262	2	Public Outreach	BLM's process also failed to allow sufficient public input, particularly from the subsistence communities likely to be affected.	Pursuant to ANILCA Section 810, a subsistence hearing was held in every community where subsistence users may face a significant restriction of subsistence activities.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	3	Public Outreach	Additionally, we have repeatedly explained to BLM that we are overwhelmed by the pace of planning and development, which hinders our ability to have constructive and meaningful involvement. Yet BLM rejected our request for a 60-day extension to comment on this plan revision. The resulting very short review and comment period makes it very difficult for us to comment meaningfully on this highly technical and important plan.	Based on requests from the public and stakeholders, the BLM extended the comment period to a total of 75 days, 30 days more than required by CEQ regulations. In addition, the BLM consulted with the Native Village of Nuiqsut, providing opportunities for input into the IAP/EIS process prior to the release of the Draft IAP/EIS.
Tukrook	Lola	Point Lay	27333	1	Public Outreach	Are you guys going to go to Point Hope and Kaktovik as well, because even though the migration -- are you going to be asking them as well?	The communities where public meetings were held were based on the scope of the proposed action, alternatives, the IAP/EIS process, and the BLM's understanding of potential impacts of the project on the public's values and needs.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Little	Suzanne	The Pew Charitable Trusts	26136	1	Public Outreach	Timeframe Inadequate. Public participation is a foundational component of the National Environmental Policy Act (NEPA). Federal agencies must engage state, local and tribal governments and consider public input on the proposed alternatives in the Draft IAP, weighing concerns, potential impacts and relevant effects of past actions. BLM is rushing this process and not providing adequate time for meaningful participation by the people and communities most affected by the project, particularly since the comment period overlapped the holiday season. Many entities, including the Native Village of Nuiqsut, the North Slope Borough, the Western Arctic Caribou Herd Working Group and environmental and indigenous groups submitted requests to BLM asking for an extension to the comment period by 60 days to ensure meaningful participation by local communities and others. Additionally, cold weather caused cancellation of several community public hearings on the North Slope. To give North Slope communities adequate time to formulate comments, BLM should extend the comment period.	The public comment period was extended by 15 days.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Williams	Vera	Utqiavik	27403	4	Public Outreach	So one of my friends is texting me and said, we didn't get enough notice; how did you make it to the meeting? She's texting me right now. How come us landowners don't even know anything? I notice you had people listed for your contacts. We are with the Native Village of Barrow. And there's also ICAS. ICAS has several villages, but Barrow, itself, is a -- Native Village of Barrow is a stand -- standalone native government and they're the ones that notified us -- know it -- allotment owners about any meetings like this, and we didn't even see any of these kind of notices. So if you're in collaboration with other entities, I would want you guys to also go to the village that represents the people, also, not just big organizations. You need to get to -- to our -- to our level, which is our tribe, also. So I don't know, there's -- I don't think Native Village of Barrow is even here. I don't even know why they're not here. I don't even know why Barrow people aren't even here.	Public meetings were advertised in the *Arctic Sounder*, *Fairbanks Daily Miner*, and *Anchorage Daily News*. Radio announcements were made on KBRW, and notifications and flyers were distributed to all tribal and city governments where meetings were held. The schedule of public meetings was also posted on the BLM's website.
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	3	Public Outreach	NPRA Working Group The BLM has an excellent mechanism for collaboration with local communities through the NPR-A Working Group. Secretary Salazar established the NPR-A Working Group as part of the 2013 Record of Decision for the current NPR-A IAP EIS as a vehicle for local people to advise the BLM State Director on local concerns with respect to the NPR-A and the BLM's management of the NPR-A. Confusion over the status of the group as it related to the Federal Advisory Committee Act (FACA) led	In the ROD, the BLM will consider the creation of a working group.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	to mismanagement of the group on the part of the BLM, outside groups overwhelmed local voices, and ultimately, the group was suspended. VOICE has previously advocated for the reconstitution of that Working Group and was encouraged when the BLM agreed to re-form that group. Unfortunately, it seems that the Working Group is not functioning to its full potential. Recently, the BLM has allowed more noise in the system. By posting public notices for Working Group meetings, more outside interest groups have lobbied for access to that group, which has led to renewed frustration and inactivity within the group. VOICE feels that due to this recent stagnation, the BLM has missed a critical opportunity to walk through the Draft IAP EIS, the proposed management changes and alternatives, and to hear critical feedback. As you know, the group is comprised of the leadership of each entity on the North Slope, who should be actively included in decisions by the BLM as this process moves forward. As an example of the kind of outreach and consultation that VOICE expects: In 2013, as the BLM was working on the Regional Mitigation Strategy (RMS) for the North Slope, that BLM administration made every effort to host in-person meetings in Fairbanks to hear from local leaders about their recommendations for the RMS. For an undertaking as significant and consequential as an updated IAP EIS, VOICE is disappointed that in addition to	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	3 *(cont.)*	*(see above)*	community meetings, the BLM made no effort to host a similar roundtable forum to assist our community leaders in understanding and providing direction to this document. VOICE has concerns that the NPR-A Working Group has become a “box to check” to the BLM rather than a respected forum for relevant regional engagement. We hope that the BLM will work to re-prioritize the Working Group and ensure that this forum remains an opportunity where local people can collaborate meaningfully and directly with the agency and can contribute local input to management decisions in the NPR-A.	*(see above)*
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	14	Public Outreach	We reiterate again that the wide range of the WACH and the variety of users that rely on the herd mean that actions and decisions taken in one part of the herd range affect all communities across the region and those beyond. We strongly urge that BLM make additional efforts for engagement with all communities in the region, as well as with stakeholders outside of the herd range that interact with and value the herd, providing opportunities for all people to participate in the IAP/EIS process. We also asked at scoping for additional time to be provided for comments on the IAP/EIS process, recommending a minimum 90-day comment period. This also was not done for the draft IAP/EIS, which features a 60-day comment period, much of which overlaps with the busy holiday season. As is stated above, the Working Group includes	Appendix C lists all consultation conducted by the BLM in preparing the IAP/EIS. The public comment period was extended by 15 days in response to stakeholder comments.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	14 *(cont.)*	*(see above)*	representatives of stakeholder groups from across the state of Alaska. It takes time to inform our members of new proposals and to organize discussion and feedback, especially for those living in some of the more remote villages where communication can be a challenge. Furthermore, representatives to the Working Group need time to communicate information with their communities about development processes and Working Group positions, to facilitate other comment development and submission. The numerous development proposals in recent years, many with overlapping comment periods, severely challenge the ability of stakeholders such as the Working Group and those we represent to provide robust comments. Short commenting periods further complicate these efforts. We again ask for additional time in the future for formulating and submitting feedback.	*(see above)*

Z.3.31 Purpose and Need

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
McGuire	Rebecca	Alaska Shorebird Group	27169	2	Purpose and Need	There is no need to revise the NPR-A IAP developed in 2013 The ASG and the BPIF groups believe that Secretarial Order 3352 to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources” was already met in the 2013 NPR-A IAP. Indeed, the 2013 Record of Decision includes the wording “the plan	The IAP considers different ways to achieve an appropriate balance between development and conservation.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	2 *(cont.)*	*(see above)*	adopted by this decision balances the Secretary's responsibilities to provide for oil and gas leasing and to protect and conserve the important surface resources and uses of the Reserve".13 Further, the current IAP "shifts the goal posts" by using the 2013 accepted alternative to represent one of the new, more conservative alternatives. The 2013 plan was originally considered a balance between development and resource conservation; further modifying the 2013 IAP disrupts that balance. A true conservative alternative would only include 20% of lands available for development as opposed to the 52% of lands available in the 2013 Record of Decision. While we recognize that the Naval Petroleum Reserves Production Act in 1976 requires the Secretary to undertake an "expeditious program of oil and gas leasing", it also requires "maximum protection" for areas having "significant subsistence, recreational, fish and wildlife, or historical or scenic value."14 Further, the level of development needed was not specified, and it would seem having 52% of lands available is well balanced, if not slightly favoring development. Therefore, we urge the amount of lands available for development be kept at the current IAP level of 52% or be reduced to the 50% level outlined in Alternative B. 13 2013 NPR-A IAP Record of Decision, Summary, p. iii. 14 42 USC §6504.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	15	Purpose and Need	BLM's failure to acknowledge its protective mandates under the NPRPA is unacceptable and an unexplained reversal in agency position, in light of its statement in 2012. As properly expressed, BLM's purpose and need for this planning process is for BLM to consider whether to revise the existing IAP and its ROD, and if so, under what circumstances to ensure compliance with federal statutes, including NPRPA's mandates to allow for oil and gas leasing while ensuring maximum protection of surface resources and FLPMA's mandate to avoid unnecessary and undue degradation to the public lands. The Secretarial Order relied upon by the agency does not negate consideration of these important and statutorily mandated conservation mandates and cannot constrain the purpose and need to the exclusion of these mandates. Thus, BLM's purpose and need statement does not account for these statutory provisions and must be revised.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of an area's available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Baraff	Lisa	Fairbanks	27281	1	Purpose and Need	The purpose and need for the revised IAP is based on what I and probably many consider a false narrative of Secretarial Order 3352 to, in quotes, effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources. The 2013 ROD for the current IAP states that the plan, in quotes, balances the secretary's responsibilities to provide for oil and gas leasing and to protect and conserve the important surface resources and uses of the reserve. What is considered appropriate appears at issue. Access to oil reserves discovered in 2015 and 2017 and the Nanushuk formation that underlies the Teshekpuk Lake Special Area is the true impetus for this rewrite. Seeking to open more areas to leasing is not an appropriate balance. It is tipping the scales in favor of industry.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The BLM and cooperating agencies designed the alternatives to consider different ways to balance development and conservation.
Meyer	Kennon	Patagonia Works	27179	1	Purpose and Need	Under NEPA, an EIS must "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."22 According to the DEIS, the purpose and need for the BLM's revision to the IAP is to "determine the appropriate management of all BLM-managed lands in the NPR-A in a manner consistent with existing statutory direction and Secretarial Order 3352." Secretarial Order 3352, dated May 31, 2017, directs the development of a schedule to "effectuate the lawful review and development of a revised IAP for the	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The BLM and cooperating agencies designed the alternatives to consider different ways to balance development and conservation.

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(see above)	*(see above)*	*(see above)*	*(see above)*	1 *(cont.)*	*(see above)*	NPR-A that strikes an appropriate statutory balance of promoting development while protecting surface resources." 22 40 C.F.R. § 1502.13. However, the BLM just recently completed and issued the 2013 NPR-A IAP ROD. During the scoping process for the 2013 NPR-A IAP ROD, the BLM held numerous meetings and received hundreds of thousands of comments.23 The 2013 NPR-A IAP ROD even provides that it "balances the Secretary's responsibilities to provide for oil and gas leasing and to protect and conserve the important surface resources and uses of the Reserve." Now, the DEIS fails to describe any change in circumstances, whether through qualitative description or quantitative data, that would warrant an entirely new planning document. Without such an indication, there is no real need for the revision of the 2013 NPR-A IAP ROD. 23 National Petroleum Reserve- Alaska Integrated Activity Plan Record of Decision at 37 (February 21, 2013).	*(see above)*
Strasenburgh	John	–	27291	1	Purpose and Need	BLM has demonstrated no legitimate need to overturn the 2013 IAP/EIS. For the record, I have included an excerpt from my scoping comments for the Draft 2019 IAP/EIS, which demonstrates that the decision to re-plan was made with undue haste and was not supported by a thorough analysis.	The IAP considers different ways to achieve an appropriate balance between development and conservation.

Z.3.32 Range of Alternatives

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	3	Range of Alternatives	Past studies have also shown that molting geese will flee onto lakes during aircraft overflights. ROP F-3 requires that lessees must minimize aircraft use in the GMA but does not clarify what “minimize” means in terms of number and routes of flights. It is thus unclear what level of protection this ROP will actually convey. Furthermore, the BLM may state such requirements in its conditions of use provided to lessees and permittees, but in the last 20 years has done little or nothing to monitor this type of activity. This raises concerns about enforcement and the ultimate effectiveness of such aircraft restrictions. The FEIS must discuss the probability that such flights would have population level effects on brant or other molting geese. The additive effects of these impacts on brant would likely mean that Alternative D would not provide adequate protection to prevent brant population reduction or even extirpation in the Teshekpuk Lake Special Area (TLSA), which was initially designated to do just that. Such an outcome would not represent “balance” in use of the land.	The BLM has an inspection program for all of its permits to ensure that all ROPs are being followed.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	9	Range of Alternatives	The impacts analysis for the Teshekpuk Caribou Herd in the DEIS needs updating. The 2019 NPR-A oil and gas lease sale greatly increased the acreage leased within the NPR-A, including a substantial area leased to the west of most previous leases. This information is not included in calculations of caribou habitat percentages or numbers of individuals overlapping with lease and infrastructure restrictions. Some of the new leases overlap with areas that would have leasing restrictions under some action alternatives, especially Alternative B. The DEIS states that leasing restrictions and stipulations under the revised IAP will only pertain to new leases, not to those already existing when the IAP is finalized. BLM has made clear in the past that issuing a lease carries with it an obligation to allow development of that lease. This means that the acreages assumed to be unavailable to leasing or with infrastructure restrictions under the DEIS no longer match the conditions within the NPR-A. The EIS must be updated to more clearly reflect the potential impacts in already leased lands and how this alters potential protections for species and habitats under each alternative.	The maps for Alternative B have been updated to show all currently held leases. The RFD and analysis for each alternative has been updated with the most current information.

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Donahey	Leah	Alaska Wilderness League	29320	18	Range of Alternatives	The DEIS considers four alternatives: Alternative A (no action, continuation of the 2013 IAP), Alternative B (similar to Alternative A, but with additional land opened for drilling in the Teshekpuk Lake Special Area and no Colville River Special Area), Alternative C (allowing leasing on 75 percent of the Reserve), and Alternative D (allowing leasing on 81 percent of the Reserve). BLM neglected to consider a range of reasonable alternatives because none of the action alternatives meet BLM's protective mandates under NEPA and the NPRPA or provide a meaningful range of adequate mitigation measures, there is no true No Action Alternative, and BLM failed to analyze an environmentally protective alternative.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Donahey	Leah	Alaska Wilderness League	29320	17	Range of Alternatives	BLM's range of alternatives does not meet its NEPA obligations. None of the alternatives meaningfully protects critical wildlife and subsistence use areas. To comply with NEPA, BLM must consider a no-leasing alternative, as well as other more protective alternatives.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Ranger	Richard	American Petroleum Institute	29314	1	Range of Alternatives	Alternative D contains proposed lease stipulations and Required Operating Procedures ("ROPs") that industry believes would strongly discourage and possibly prevent additional leasing and development at NPR-A, and that are beyond what is needed for balanced protection of the environment there. These problematic provisions include a requirement applicable to winter tundra travel in ROP C-2a for three inches of snow water equivalent, which could preclude such travel on federal lands (preventing, for example, pre-packing snow, which is essential for responsible ice road construction); a prohibition in K-9e of "major construction activities" from May 20 to August 20 or longer, which may make construction of drill sites in new areas too time consuming or too expensive; and a glossary definition of "waterbody" that might be used under ROP A-5 to contend that refueling is not allowed near a wetland, which is not feasible on the North Slope where wetlands are nearly ubiquitous.	The NPRPA requires the BLM to protect important surface resources, consistent with the exploration and development of the Reserve. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. Additional ROPs may apply in sensitive areas. ROP C-2 has been updated in the Final IAP/EIS. ROP A-5 was updated to include the specific waterbodies applicable.

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Culliney	Susan	Anchorage	27910	1	Range of Alternatives	But more broadly, it's clear that this draft environmental impact statement does not contain the full range of alternatives that are needed to reasonably analyze the impacts from erosion, diminished sea ice, changing vegetation regimes, shifting wildlife patterns, and the exacerbating effects of industrial development.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.” The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.
Lanctot	Richard	Anchorage	27913	4	Range of Alternatives	The no-action one, Alternative A, it was presented like it was the 2013 situation, but then I've also heard from several people that that's really not the case, like the Colville River, it was taken out of that special area. Can you comment about whether there are indeed changes from the 2013 in Alternative A?	Alternative A retains the Colville River Special Area. There are no changes between the 2013 ROD and Alternative A.
Kenning	Erik	ASRC	29299	4	Range of Alternatives	ASRC continues to recommend that BLM include the entirety of the NPRA in their IAP EIS. ASRC understands that while BLM may ultimately determine some areas should be unavailable for leasing or surface disruption, because the NPRA IAP EIS is the management tool BLM uses in their decision-making for the entire NPRA we feel it is important to include the area in its entirety. Specifically, ASRC recommends the following: * Southern Withdrawal-BLM should include the portions of the NPRA which were previously withheld from leasing. While industry has not yet	Opening the entirety of the Utukok River Uplands Special Area to industrial activity is remote and speculative in its implementation. Industry has not expressed an interest in this area, and it lies in an area of low oil and gas potential that is very far from existing oil and gas infrastructure. The Teshekpuk Lake Special Area was established to protect important migratory bird habitat and the calving grounds of the Teshekpuk Caribou Herd. The boundary was adjusted in the action alternatives to incorporate

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	shown significant interest in the southern NPRA, activities are beginning to move south and west across the NPRA. BLM should not limit future activities by being short sighted and withdrawing nearly 50% of the NRPA from leasing as occurred in the 2013 ROD. As an alternative, BLM could reasonably defer leasing for a set amount of time but should include the southern portion of the NPRA in the planning process. * Teshekpuk Lake Special Area-ASRC recognizes the ecological significance and cultural importance of the Teshekpuk Lake area; however this area was expanded significantly in the 2013 ROD with little explanation or scientific backing. ASRC recommends that BLM review the area surrounding Teshekpuk Lake and refine the areas that are "Unavailable for Leasing". As the North Slope Borough points out in their January 22 comments, compromise is possible and more of the highly prospective Teshekpuk Lake area could be made available for leasing with robust permit stipulations and best management practices. ASRC likewise supports this approach. * Colville River Special Area-ASRC does not support the Colville River Special Area and is encouraged to see that BLM has dropped this for Alternatives B, C and D. As stated above, BLM should adjust the boundaries for the Teshekpuk Lake Special Area to what is supported by sound science. BLM should look to lessons learned from the nearby	the best available information about the distribution of these resources. Designation of a special area, in and of itself, does not provide any protection. Land management prescriptions in the special areas differ by alternative.

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(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	Alpine development and ongoing development in NPRA on how development can proceed with the least environmental and cultural impacts.	*(see above)*
Kenning	Erik	ASRC	29299	17	Range of Alternatives	ASRC supports a thorough review of timing limitations for the Teshekpuk Caribou Herd Habitat Area listed in stipulation K-9. BLM should work closely with local residents, the NSB, State of Alaska and industry to find stipulations that are effective yet not barriers to responsible development. ASRC would suggest the review of a 30 day window around the core calving period based on sound science as part of a revised stipulation as we feel that May 20-August 20 is well beyond what is logical. We would also like to point out that Prudhoe Bay and other developments have never had timing restrictions like this and the CAH has thrived.	Stipulation K-9 has been updated in the Final IAP/EIS.
Kenning	Erik	ASRC	29299	16	Range of Alternatives	Timing Limitations ASRC generally does not support timing limitations for the Teshekpuk Caribou Herd (Teshekpuk Caribou Herd) Habitat Area as written. These are too cumbersome and ill defined. ASRC has concern over “major construction activities using heavy equipment”, as some of these possible projects could be essential for a development to move forward. These sort of poorly defined restrictions could also push smaller developments to be uneconomical.	Stipulation K-9 has been updated in the Final IAP/EIS.

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Kenning	Erik	ASRC	29299	6	Range of Alternatives	ASRC has some concerns with K-9, "Teshekpuk Caribou Herd Habitat Area" as defined, especially on the east and west sides of the Teshekpuk Lake. These buffers restrict options such as if the best place to locate a pipeline or road was closer to the lake (or the coast) to leave more area open for migration purposes. It seems that these restrictions may move possible infrastructure to the middle of these corridors when maybe they would be better located on one side or the other.	Stipulations K-5, K-9, and K-10 have been updated to allow consideration of pipeline placement within setbacks.
Kenning	Erik	ASRC	29299	21	Range of Alternatives	Coastal Setback ASRC thinks that having a blanket one mile set back from the coast could be limiting and excluding viable options. There may be instances where being within one mile of the coast could be the best option, both environmentally and economically. BLM should not arbitrarily exclude these areas. We support reviewing each possible occurrence where within one mile of the coast on a case by case basis using sound science and meaningful stipulations. Leasing in State waters is offered off the coast of NPRA which must comply with NMFS and FWS requirements, and activity on Native owned land would not require these same exclusions.	Stipulation K-5 allows the siting of essential coastal infrastructure (barge landings/seawater treatment plants/etc.) within the 1-mile coastal setback. Other permanent infrastructure is not appropriate due to rates of coastal erosion.

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Lloyd	Rod	Atqasuk	27313	3	Range of Alternatives	Can I just make one more comment for the record? Again, this is Rod Lloyd, and I guess I'm just looking at the alternatives out there. And I'm -- I'm certainly more in favor of the A and B than the C, and just for the parts of the protection for the Teshekpuk Lake area, and that other area, because that is where all of -- one of our greatest resources of the caribou come from. And so I look at -- I look at Alternative D, and with -- you know, it's -- it's pretty much wide open. And that would be my concern is just for sustainable herd for people to use it. And that, really, Alternative A and B, I know A is no change; B is a little bit more. But it's too bad there's not one between B and C, because it's either more or substantially less. Because that's kind of what we're looking at is that -- you know, is there a happy medium between the two or, you know, is there ways through comment that that can be looked at? Because, I mean, we're pretty -- it's kind of cut and dry, stay the same, add more, decrease it substantially, or pretty much, you know, Katy, bar the doors, because everything is opened up.	During the development of the preferred alternative, the BLM may incorporate elements of Alternatives B and C or any other combination of alternatives.
Rowland-Shea	Jennifer	Center for American Progress	26211	1	Range of Alternatives	The BLM's plan offers only limited alternatives, all of which drive more oil and gas development, and fail to protect the Reserve's important resources.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

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Schell	John	ConocoPhillips Alaska	29272	1	Range of Alternatives	Alternative B is more restrictive than the current IAP with respect to lands available for leasing. ConocoPhillips opposes this alternative. Designating even more lands as unavailable for leasing would impair the goal of making development decisions based on good information about what resources are available. Allowing for broad leasing and exploration is the best way to make well-informed decisions about future development investments and is consistent with Congressional intent and the direction of Secretarial Order 3352. Alternative B does not follow that direction. Alternative B also contains onerous or vague restrictions, especially in the K-series of additional protections, that ConocoPhillips opposes as unnecessary burdens on leasing, exploration, and economic development.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.
Baraff	Lisa	Fairbanks	27281	2	Range of Alternatives	The action alternatives offered are false limited choices and not -- and this is, again -- sorry, my -- all my little quotes, are wide spectrum of management options as implied in the DEIS, all lead to more development and none do enough to protect important resources.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

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Baraff	Lisa	Fairbanks	27281	4	Range of Alternatives	And so as sort of the -- in looking at these alternatives presented before us, the four alternatives, you said that it could be some conglomeration of the action alternatives. How -- what -- I know there's some precedence for altering an alternative by the ROD. But how is there precedence for adding a new alternative or a complete revamping of alternatives since none of these seem, well, from my perspective and the perspective of others, and you may hear otherwise, suitable?	New alternatives presented during the public comment period were considered if they met the purpose and need.
Raynolds	Martha	Fairbanks	27322	1	Range of Alternatives	But what really will guide the decision is the values behind this. Why are we choosing one alternative versus another alternative? And so I think it's very important to include those value comments as part of the comments in an EIS like this. As I was listening to Lisa's describing the different alternatives, it occurred to me that what is really missing in this EIS is an alternative that addresses the climate emergency that the world is facing now, and I think all EIS's should have a climate emergency alternative.	The Final IAP/EIS includes an appendix of all substantive comments. In addition, the BLM will post all public comments on the project website. The analysis evaluated each alternative's contribution to global climate change. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	34	Range of Alternatives	ROP A-4: This change eliminates the specific requirements that currently govern storage of oil and fuel products in the field and replaces them with vague and discretionary guidelines that essentially leave it up to industry to decide what practices are good enough to prevent and clean an oil or fuel spill. Kuukpik opposes this change because small scale oil and fuel spills are more likely to occur when industry is not required to follow the practices that are currently in place.	All ROPs that are duplicative of existing state and federal regulations were dropped as BLM requirements. Although this requirement is no longer a part of a BLM-ROP, it is still required under federal law.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	37	Range of Alternatives	ROP A-7: Kuukpik does not understand the justification for this change. Even if the state normally regulates discharges, BLM has authority {as a landowner at least) to prohibit discharges onto its own land (regardless of the water quality regulations applicable to same) and should continue to do so.	All ROPs that are duplicative of existing state and federal regulations were dropped as BLM requirements. Although this requirement is no longer a part of a BLM-ROP, it is still required under federal law.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	1	Range of Alternatives	There is almost no effort to quantify or predict how much worse the impacts from Alternatives C and especially D would be compared to Alternative A or B.	NEPA requires the BLM to analyze in the IAP/EIS the impacts under each alternative. The impacts of Alternative A provide the baseline to which the impacts of the action alternatives are compared.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	35	Range of Alternatives	ROP A-5: Kuukpik does not necessarily oppose reducing the refueling setback from 500 feet because this requirement is so routinely waived that it rarely applies anyway. However, we would prefer a 200 foot buffer instead 100 feet. The AO's discretion to authorize an exception should either be eliminated or more highly constrained than is currently proposed. Reducing the buffer from 500 to 200 (or I 00) feet should mean that waivers to the new standard are rarely needed.	Due to the topography of the NPR-A, it is not possible to require refueling to be at least 500' from a waterbody. The BLM has had to issue a waiver to this requirement for every permanent development in the NPR-A. This ROP was adjusted to make it achievable.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	36	Range of Alternatives	ROP A-6: Kuukpik disagrees with the proposal to eliminate a rule preventing reserve pits. Eliminating a prohibition invites operators to re-commence an activity that was formerly prohibited. Even if reserve pits are unlikely to return to normal operations, this change sets a bad precedent because there may be other practices that operators would be more likely to recommence if a prohibition is lifted.	Reserve pits were used in the past to capture drilling muds and fluids during legacy well drilling, but they are no longer used by industry today. There are approximately 21 inactive reserve pits in the NPR-A regulated by the State of Alaska under its inactive reserve pit closure regulations, 18 AAC 60.440. If reserve pits are used in the future, surface discharge of reserve pit fluid is prohibited by State law.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	39	Range of Alternatives	ROP B-2: The proposed changes to water usage appear to be a modest improvement, but this also implicates the question of which agency will be responsible for water withdrawals (and discharges) going forward (see number 6 above).	The State of Alaska regulates water withdrawal and discharge into navigable waters, pursuant to the Clean Water Act.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	32	Range of Alternatives	ROP A-3-This change would eviscerate annual hazardous substance planning and training requirements. Currently-required "Spill prevention and response contingency plans" would be replaced with a "hazardous substances contingency plan", which is not required to contain nearly the level of detail as the current BMP requires. Fewer activities would even be required to have such a plan. Annual spill response training would no longer be required. In fact, no spill response training is required at all. Kuukpik categorically opposes this change.	All ROPs that are duplicative of existing state and federal regulations were dropped as BLM requirements. Although this requirement is no longer a part of a BLM-ROP, it is still required under federal and state law.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	18	Range of Alternatives	the lack of an identified preferred alternative makes it difficult to provide efficient feedback because commenters can't focus their comments on the proposal BLM is leaning towards. Instead, we have to respond to all the alternatives even though some aspects of each plan are so unrealistic or ill-conceived that they shouldn't even be on the table, such as Alternative D's proposal to open the entire bed of Teshekpuk Lake and all of its islands to leasing. This not only takes more time and resources for commenters, it wastes BLM's time because it has to wade through comments on alternatives that aren't really under serious consideration. It would be much easier for everyone if BLM would announce a preferred alternative in these IAP NEPA processes and explain upfront why it believes changes to the existing plan are necessary at all.	Under CEQ regulation 1502.14(e), the lead agency need not identify a preferred alternative in a draft EIS if it does not have one.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	20	Range of Alternatives	The Draft estimates that just a third of calving caribou would occupy lands that are closed to leasing or surface occupancy.38 By comparison, nearly 80% would do so under Alternative A (and 72% under Alternative C39). In other words, Alternative A would allow two and a half times as many caribou to calve relatively undisturbed as Alternative D. We've already discussed the dramatic impact that this difference could have on calving success and therefore the health of the Teshekpuk Caribou Herd and the subsistence community of Nuiqsut. There is simply no dispute that Alternative D poses an unreasonable, unjustifiable risk to one of the North Slope's most important subsistence resources. 37 See K-9. Alternative D ("Federal mineral estate within 3 miles of Teshekpuk Lake, except for the southern shore, is open to leasing. subject to a no surface occupancy stipulation. Federal mineral estate within 1 mile ofthe southern shore of Teshekpuk Lake is open to leasing, subject to a no surface occupancy stipulation. No exceptions, waivers, or modifications would be permitted."). 38 2019 NPR-A IAP DEIS, p. 3-175 and Table R-4. 39 However. the Alternative C estimate is misleading because this alternative would convert a significant amount of currently non-leasable land to be available for leasing but without surface occupancy. See Map 2-5. Unfortunately, the non-surface occupancy lands proposed are not	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located, in order to analyze specific locations. The analysis relies heavily on estimated impacts from land allocations. The qualitative analysis for each resource discloses the impacts expected from development.

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(see above)	*(see above)*	*(see above)*	*(see above)*	20 *(cont.)*	*(see above)*	contiguous. So there could be a (presumably roadless) drill site or other infrastructure constructed in an area that is surrounded by NSO restrictions (and which are currently not even available for leasing), significantly undercutting the value of the NSO restriction in the first place. 2019 NPR-A IAP DEIS, p. 3-175. In short, the 72% estimate is only true in terms of lines on a piece of paper, not in the practical reality on the ground.	*(see above)*
NAVARRETTE	Rikki	Kuukpik Corporation	29284	28	Range of Alternatives	The Draft EIS glosses over meaningful differences between alternatives by simply ranking them according to the amount of land they would open to leasing and surface occupancy.	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located in order to analyze specific locations. The analysis relies heavily on estimated impacts from land allocations. The qualitative analysis for each resource discloses the impacts expected from development.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	33	Range of Alternatives	ROP A-1 and/or A-2-Kuukpik believes the ROPs should acknowledge and/or clarify that BLM's management plans does not prohibit a landfill from being authorized in NPR-A if it could be approved consistent with other applicable regulations and was not opposed by the community. As development moves west, it may become preferable to facilitate management of non-putrescible solid wastes (e.g., scrap steel, demolition material, junk vehicles, etc.) into properly prepared depleted mine sites, much like what is current happening at the Put 23 gravel site. NSB (under landfill plans approved by the BLM and perhaps the State) could potentially establish and operate a similar facility west of the Colville, perhaps using one of the two mine sites that are expected to be depleted for the Willow Project. Kuukpik is not sure whether the community would ultimately support such a facility, but believes the IAP should not foreclose it entirely (or be silent on it). Instead, the IAP should indicate that a landfill could be permitted on a site-specific basis if stakeholders, including the community of Nuiqsut, later determine that the benefits of such a facility would outweigh its potential impacts and risks.	Under all action alternatives community infrastructure can potentially be permitted anywhere in the NPR-A. This could apply to landfills owned and operated by the North Slope Borough upon a showing that use of non-federal lands is impracticable.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	38	Range of Alternatives	ROP A-11: Kuukpik opposes the decision to eliminate the requirement to perform studies on contamination of subsistence foods because this is a serious concern for the people of Nuiqsut. In fact, Kuukpik believes there should be more such studies and their results publicized more widely in order to help assure local residents that their food is not contaminated by development. Based on the concerns voiced during many recent public hearings in Nuiqsut, all stakeholders should share that interest.	A comprehensive study of contamination in subsistence foods is beyond the scope of any single development. This study is more appropriate for federal, state, and local agencies to conduct.
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	8	Range of Alternatives	The draft EIS is also does not provide enough information for BLM or the public to compare the alternatives. BLM describes significant, short- and long-term effects to subsistence from all alternatives, but the draft EIS contains very little discussion of the specific impacts of the different alternatives. This is inconsistent with NEPA's requirement that an agency “present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.”12 BLM must provide this comparison of alternatives so that we can easily see the differences between the impacts from each alternative and make fully informed decisions “based on [an] understanding of environmental consequences.”13 12 40 C.F.R. § 1502.14. 13 Id. § 1500.1(c).	The IAP/EIS does analyze the impacts on subsistence from each alternative. See Section 3.4.3 and Appendix T.

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Fisher	Kevin	North Slope Borough	29290	10	Range of Alternatives	Protections for Sensitive Bird Species (E-11) In ROP E-11, BLM would require at least three years of aerial survey data for spectacled eiders, Steller's eiders, and yellow-billed loons prior to the approval of infrastructure construction. BLM notes that the requirement to gather this information may be waived if an acceptable dataset already exists. The Borough is concerned that this requirement may lead to additional impacts to subsistence resources and users because of disturbance from aircraft. Because of this concern, and because a significant amount of data for these species in the NPR-A already exists, the requirement for three years of survey data may be unnecessary. As noted below, the Borough remains concerned about the environmental and subsistence impacts associated with aerial surveys and encourages BLM to reduce the utilization of aerial surveys in the future. This could be accomplished by promoting the engagement and utilization of village resources to access study sites by snow machine, 4-wheeler or boat.	ROP E-11 has been updated in the Final IAP/EIS.
Fisher	Kevin	North Slope Borough	29290	12	Range of Alternatives	Reassess the Need for Aerial Surveys (E-11 and K-8)	ROP E-11 and Stipulation K-8 have been updated in the Final IAP/EIS.

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Fisher	Kevin	North Slope Borough	29290	13	Range of Alternatives	The Borough strongly encourages BLM to reassess the need for environmental studies that require aircraft, particularly helicopters. Aerial surveys are consistently one of the most voiced grievances associated with oil and gas development in our communities. These aerial surveys may disturb waterfowl and caribou, possibly altering their migration routes and deflecting them from our villages. It is unfortunate that measures designed to mitigate the impacts of development by requiring scientific studies appear to create some of the most frequent impacts on local residents. BLM must reduce and minimize the number of helicopter surveys, while still requiring the collection and utilization of adequate information about subsistence resources. There are likely novel methods that could be used, such as remote sensing, drones, etc., which would minimize disturbance but still allow for the collection of information. As mentioned above, another alternative is for scientists to involve the experts and resources in our communities to access study sites and to conduct the studies. We encourage BLM to involve the Borough in discussions about those methods and others that could be employed for scientific studies.	All ROPs and lease stipulations requiring studies have been adjusted to allow for the use of existing data, where such data exists.

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Leavitt	Dora	Nuiqsut	27396	4	Range of Alternatives	Deformities in our fish, I -- I caught those myself, 16 of them last year, when I go burbot -- I mean, not burbot, whitefish just six miles from Nuiqsut. These impacts are ignored by all you agencies, because you want to develop, you want the money. When are we going to go to alternative and start looking into the alternative heating, alternative lighting, alternative everything? We need a buffer zone around our community, because we are impacted. The whole village of Nuiqsut, all around us, we need a buffer zone at the mouth of our rivers, at the rivers, both sides. That should have happened long time ago.	Although alternative energy projects are not prohibited in the NPR-A, the NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Under Alternative B, the BLM is considering a leasing deferral area around the City of Nuiqsut and, under Alternative E (Preferred Alternative), a leasing deferral for the caribou migration corridors around Teshekpuk Lake.
Leavitt	Dora	Nuiqsut	27396	7	Range of Alternatives	We just wanted them to slow down and set back away from the river, because that's really the caribous that come from the east. That's where they go and up through Itkillik River. We were heavily impacted with this GMT road. And we'd like to see October -- September, October where there's no activity when we're trying to harvest our caribou.	A total shutdown of all operations is not practical and is not consistent with lease rights. River setbacks exist for multiple rivers and are outlined in Stipulation K-1.
Leavitt	Dora	Nuiqsut	27396	12	Range of Alternatives	So when -- okay, and then when you see frost that is not even packed or six inches, and they still build an ice road. I mean, that's breaking the rules. I mean, what are the consequences for that?	Per the lessee's permit, the operator is allowed to drive certain vehicles on the tundra to do prepacking before conditions for ice road construction begins.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Leavitt	Dora	Nuiqsut	27396	13	Range of Alternatives	And then I have another question in regard to crossing willows -- building a road on willows. I know back then, they weren't allowed to go across the willows, and now we have roads that go across the willows. I mean, those -- they don't rehabilitate when you break those. That was one of the stipulations, too, back then. I remember, because I've been to all these meetings. I was so young, but I was so eager to learn what was going to come up. And I've listened to all the elders' comments and there are the 29 stipulations that was taken off in 1995.	ROP C-2 protects streambanks and minimizes displacement of vegetation. At the permitting stage, additional protections may be put into place for specific projects.
Leavitt	Dora	Nuiqsut	27396	2	Range of Alternatives	This 10-years buffer zone where it says, no leasing for 10 years, who -- who -- who determined that? Who made -- who determined these alternatives?	The BLM and cooperating agencies designed the alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Leavitt	Dora	Nuiqsut	27396	3	Range of Alternatives	I also have comments about the mitigation -- the NPR-A mitigation fund. Since it started, Utqiavik and Wainwright has gotten new piuraagvik; they've gotten new cultural centers; and they don't even see or feel the impacts like we do. Pipeline, roads, this community go from 450 people population and -- and from November. Now, we start in November. We used to start after the holidays. Go from 450 people to about 10,000, even probably more coming through our village. We should be a hub. This community should be a hub. Our runway expanded. There should be programs in our community. We talk about monies that coming in and out, and I could see zeros; grants, zero. One, two, three, four, five in over the, how many years? If you guys look at the number, it's over there. And -- and that number doesn't look right. We -- we should add in to where, if development is around you and really close to you, then you can tap into these funds. We have Wainwright and Barrow tapping into these funds, and they don't even see.	The BLM does not administer the NPR-A Mitigation Fund.
Leavitt	Dora	Nuiqsut	27396	8	Range of Alternatives	We talk about we're going to place people as observers and whatever, but they're not really there to do that job. That's why we need you guys out there to observe these activities. You're giving out all these lease.	The BLM has an inspection program for all of its permits to ensure that all ROPs are being followed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Leavitt	Dora	Nuiqsut	27396	9	Range of Alternatives	There's always new things that we don't know that KSOP should be telling us about. Every day, they should be reporting to KSOP and say, hey, this activity is going to happen; could you let your subsistence hunters know? That's supposed to be the tool. That was the purpose of KSOP is to communicate between the industry and the subsistence hunters, and that's not happening today. All they're doing is reporting what activities are happening out there, and it doesn't go anywhere. They are lacking communication to the subsistence hunters and to this community.	The BLM has included multiple requirements in the ROPs for consultation with the local communities to minimize subsistence conflicts from industry activities.
Leavitt	Dora	Nuiqsut	27396	11	Range of Alternatives	There's a weather -- where it's too cold to work, isn't that a stipulation where there's a certain temperature that you can't work? Is that part of the temperature, whatever? I'm referring to when there's activity out there, and it's 50, 60 below and all these hoses are popping because they're working, cold-weather shutdown, is that part of the stipulation?	The BLM does not have a requirement for permittees to stop operations at certain temperature thresholds.
Leavitt	Dora	Nuiqsut	27396	1	Range of Alternatives	I like the Alternative B for me, but there's got to be a little more deferral with our native allotments. It's only fifty feet when it should be five miles. The river, both sides, when those alt -- the stipulations, it used to be three miles, no buffer zone. Those were stripped when they started finding oil and gas, even really close to the river. Stipulations like no access to lakes with fish-bearing lakes; that was taken off	Alternative B was modified to include a 5-mile buffer around Native allotments.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Leavitt	Dora	Nuiqsut	27396	5	Range of Alternatives	Not even our own really corporation looking out for our people that want to work. We have people from all over the place, union people coming to work. Where is North Slope Borough? Where is the North Slope people? When are we going to start looking into the -- the only college in -- in the North Slope and say, hey, who is certified; let's put them to work, and let's give them the experience they need. Quit sending us union workers, people that don't know our way. The developers say they're going to -- they're going to train them, teach them. The other day, I just seen a fueler fueling up at the river crossing. Who is watching them? Why isn't the BLM over here overseeing all these activities? And why isn't the Corps of Engineer out there wa -- overseeing all the activities or the NEPA people and protecting our waters? Millions of gallons of water is being used by ice road for free. Who's keeping track of the restoration or the water lake withdrawal? I know when I was a sub rep, that's one of the things that we kept track, was the withdrawal of the water. I don't see that anymore. I just see them riding around. Do they even go check the pump and make sure that the RPM is set right when they're at a fish-bearing lake?	The BLM is authorized to inspect BLM-issued permits for compliance. Developments often require permits from multiple agencies, and those agencies are responsible for monitoring those permits. There are no existing lease stipulations or state regulations that address local hiring preferences.

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Napageak	Maryanne	Nuiqsut	27398	1	Range of Alternatives	I did like the idea of having a deferral around Nuiqsut. I did like that idea, but I think you guys should come back and meet with the community and have a better input on the deferral areas, because that is very important. You guys -- it's too much activ -- too much development too fast. We haven't been able to see the effects on CD5 and we already have GMT 1, GMT 2; now Willow. So I believe that BLM should come back to the community and meet about the deferral areas, because I agree the community would really want that.	The BLM held a meeting in the City of Nuiqsut with the tri-lateral group (tribal and city governments and Kuukpik Corporation) on February 12, 2020.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	14	Range of Alternatives	Alternative D is the most consistent with the aim of Secretarial Order 3352 and the purpose of the reserve, described in the Naval Petroleum Reserves Production Act of 1976 (NPR PA). However, as described in the more detailed comments below, Required Operating Procedure (ROP) C-2a could result in restricted or no winter exploration and K-9 could prevent economic development of resources. There are other problematic ROPs and K series requirements. In general BLM should eliminate measures that are too restrictive and would make exploration and development extremely challenging or infeasible (ROP C-2A and K-9); eliminate measures that are duplicative of other agency responsibilities (ROP A-10); eliminate measures that are not based on science (ROP E-11); or add unnecessary provisions that do not provide environmental (ROP E-12) or subsistence benefits (ROP F-4). The ROPs and K series requirements examples cited above are not exhaustive but are representative of measures that would make exploration and development under Alternative D problematic.	The NPRPA requires the BLM to protect important surface resources, consistent with the exploration and development of the Reserve. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. Additional ROPs may apply in sensitive areas. ROP C-2 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	15	Range of Alternatives	Alternative B is inconsistent with BLM's directive under Secretarial Order 3352 to develop a revised IAP. Alternative B further decreases the areas available for resource development with large swaths of the NPR-A completely off-limits from leasing, layered by leasing restrictions and large areas of "no surface occupancy" throughout the NPR-A. The expanded areas of restrictions on leasing and surface occupancy contained in Alternative B go so far as to overlap areas of existing leases which could undermine exploration and development areas leased to industry only one month ago.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	13	Range of Alternatives	Alternative C allows more land to become open to resource development, with 75% of the NPR-A open for leasing. However, areas open for leasing are overlaid with timing limitations and no surface occupancy restrictions. While Alternative C is promising, new infrastructure is still prohibited on 5.1 million acres. Stipulations that are too restrictive would make development extremely challenging and potentially unfeasible. RDC urges the Bureau of Land Management (BLM) to be measured in their surface limitations and restrictions to promote the primary purpose of the NPR-A.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.

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Nogi	Jill A.	U.S. Environmental Protection Agency	27438	15	Range of Alternatives	Under the current IAP, fuel storage refueling activities are prohibited within 500 feet of waterbodies to minimize the impact of contaminants from refueling operations on fish, wildlife, and the environment. Under Alternatives B, C, and D this set-back is proposed to be reduced to 100 feet in ROP A-5. We recommend that the Final EIS include analysis to support the conclusion that the reduced set-back distance will be adequately protective of sensitive resources.	Due to the topography of the NPR-A, it is not possible to require refueling to be at least 500' from a waterbody. The BLM has had to issue a waiver to this requirement for every permanent development in the NPR-A. This ROP was adjusted to make it achievable. The analysis compares the original ROP (Alternative A, A-5) to the new ROP A-5 with the reduced setback.

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Nogi	Jill A.	U.S. Environmental Protection Agency	27438	2	Range of Alternatives	Expanding on the bullet point regarding mitigation above, the EPA recommends that the BLM's preferred alternative include appropriate mitigation measures to reduce adverse subsistence impacts. BMP A-II of the existing IAP requires monitoring of subsistence foods to "ensure that permitted activities do not create human health risks through contamination of subsistence foods," however, a similar requirement is not included in any of the action alternatives in this Draft IAP. We recommend that the BLM consider how to incorporate monitoring of subsistence foods in the preferred alternative, to ensure that important resources are not impacted by permitted activities and protect human health. The EPA supports the BLM's efforts to involve and inform affected communities about project decisions and impacts and recommends that meaningful involvement continue for all future stages of oil and gas leasing, exploration, and development in the NPR-A; the proposed ROP H-5 "Public Availability of Environmental Data" will help to support meaningful involvement of affected communities for future activities.	A comprehensive study of contamination in subsistence foods is beyond the scope of any single development. This study is more appropriate for federal, state, and local agencies to conduct.

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Nogi	Jill A.	U.S. Environmental Protection Agency	27438	6	Range of Alternatives	To support the objective of Required Operating Procedure A-IO to protect public health, we recommend that hazardous air pollutants be included throughout this ROP, including for potential future monitoring and emission reduction requirements. The proposed ROP as currently drafted directly references HAPs with regard to inclusion in a pre-project emissions inventory but does not specify inclusion of HAPs in the other components. We recommend the text of the ROP clearly specify that HAPs should be considered as potential pollutants of concern under all of the listed elements.	The change has been made to ROP A-10.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	9	Range of Alternatives	We support the BLM's inclusion of greenhouse gas emissions in the ROP A-I 0 requirements for preparation of an emissions inventory and emissions reduction plan for future projects. We encourage the BLM and future project operators to continue exploring means to further reduce direct GHG emissions from activities within the NPR-A. As disclosed in the Draft EIS, Arctic regions are already experiencing the effects of global climate change. According the document, Alaska's North Slope has experienced increased average temperatures, decreased sea ice and snow cover extent, an expanded growing season, and thawing permafrost. The Draft EIS projects that peak annual production greenhouse gas emissions from hypothetical developments could be as much as 8.5% of the 2015 Alaska GHG inventory, for the “high” scenario under Alternative D, and discloses that GHG emissions under all alternatives would contribute to climate change impacts.	The social cost of carbon tool was developed for use in rulemaking and is inappropriate for use in programmatic or project level EISs. The BLM has reviewed this comment and determined that the social cost of carbon is not appropriate for this programmatic level of analysis, as described in Section G.2 of Appendix G.

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Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	9	Range of Alternatives	Teshekpuk Lake & Caribou Herd The Teshekpuk Caribou Herd (Teshekpuk Caribou Herd) is a critical subsistence resource for our people, and VOICE supports common-sense mitigation measures to protect this caribou herd. We realize that currently, as the herd is approaching its maximum for the level of subsistence harvest take that it can reasonably support, care must be taken not to overtax the Teshekpuk Caribou Herd further. VOICE encourages the BLM to implement robust leasing stipulations and Best Management Practices already in use elsewhere in the NPR-A, that are based on sound scientific backing. VOICE supports Timing Limitations during critical periods to minimize stressors to cows and calves. Still, these stipulations must be rational and based on available information regarding the timing and location of calving. A study conducted by the North Slope Borough Department of Wildlife Management, Monitoring Teshekpuk Caribou Distribution and Movements,4 shows that in data analyzed from 1990-2016, critical calving occurred primarily June 1 - June 15. The recently released EIS for the Arctic National Wildlife Refuge5 has a Timing Limitation from May 20 - June 20 to protect the calving of the Porcupine Caribou Herd, a herd much larger and less exposed to infrastructure. In light of these two points, the stipulation outlined in the NPRA IAP Draft EIS to suspend all major construction activities using heavy equipment	Stipulation K-9 has been updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	9 *(cont.)*	*(see above)*	from May 20 - August 20 seems unnecessarily restrictive, arbitrary, and not based on best available science. 4 Person, Brian. Monitoring Teshekpuk Caribou Distribution and Movements. North Slope Borough Department of Wildlife Management. 5 U.S. Department of Interior, Bureau of Land Management. Final Environmental Impact Statement: Coastal Plain Oil and Gas Leasing Program. 2019. Caribou on the North Slope have habituated to infrastructure and development activities, and we see no reason why the Teshekpuk Herd would behave any differently. Sound environmental protections must be balanced with a feasible opportunity for development.	*(see above)*
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	6	Range of Alternatives	Native Sovereignty The BLM must recognize the sovereignty of Native peoples over their lands. The BLM has no authority to implement “No Surface Occupancy” stipulations on land owned by a private Alaska Native Corporation. Specifically, Lease Stipulation K-17 oversteps the BLM's authority in the scenario laid out in Alternative C. Occupancy of Native Lands must be decided by the landowner only, based on their corporate interests and the wishes of their shareholder base. VOICE recommends that the BLM remove the NSO stipulation.	The lease stipulations and ROPs under every alternative apply only to BLM-managed land and BLM-managed subsurface minerals.

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Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	7	Range of Alternatives	In addition to its focus on oil and gas development, the draft IAP/EIS also includes some discussion of "potential for a road or other transportation system connecting communities across the North Slope" (p.1-1). Details are not entirely clear about the scope of such a proposal but what is stated is concerning. For example, the draft IAP/EIS states that "all action alternatives would allow for a potential community road connecting Nuiqsut and Utqiagvik that is routed north of Teshekpuk Lake" (p.2-3). The area north of Teshekpuk Lake is widely recognized for its important characteristics, including for migratory birds and for Teshekpuk Caribou Herd caribou, especially during insect relief. Allowing a permanent road through this area could be incredibly harmful for these species and their habitats and could facilitate other negative impacts like garbage, invasive species, competition with non-local hunters, and more. The potential consequences of such a road for caribou are striking, including displacement of substantial numbers of calving caribou, altered ability to escape insect harassment, increased harvest access, and potential for decreased body condition and productivity (p.3-172), and yet the potential for such a road receives little robust consideration or discussion. It simply is allowed under all action alternatives, without any discussion of potential restrictions, alternate routings, etc. We ask that if this is to be	At the programmatic level, the BLM does not have enough information about where infrastructure such as roads will be located, in order to analyze specific locations, and the BLM has not received any permit applications for such a road. The impacts of a potential road are discussed qualitatively in each resource section. Any permit comes with ROPs, which may include road use limitations. The State of Alaska also regulates hunting from roads.

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	considered as part of the final IAP/EIS that it gets much more robust discussion, including about how it would interact with the proposed ROPs under the different alternatives and spatial depiction of potential routes. Estimated acreages of impact to caribou habitat and approximate percentages of caribou affected by a potential community road in different seasons should also be calculated under each alternative, as is done for oil and gas development for the various alternatives. This will allow more clear comparison of differences between alternatives, especially the contrast with Alternative A where such a road is not permitted north of Teshekpuk Lake. While we realize that the exact routing is unknown for such a road, it should be possible to develop some sort of reasonable estimate. Finally, there is a statement that implies that road use limitations and hunting regulations may mitigate some of the harvest impacts (p.3-172). If this is being relied upon, more robust discussion is needed for how such regulations would be enforced in a very remote area at a time when the State of Alaska is already facing budget cuts in many areas, including law enforcement.	*(see above)*

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Burkart	Greta	_	27329	16	Range of Alternatives	Section: Water Resources Page: 3-70 Sub section: Comment: The second paragraph in the freshwater withdrawals section on page 3-70 should also state that ROP B-2 allows for greater water and ice aggregate withdrawals when less sensitive fish species are present because ROP B-2 allows for the permittees to take 20% of the entire volume instead of just the volume from the area below five feet of ice. ROP B-2 should limit withdrawal of ice aggregates and water to volumes below 5 to 7-feet to help ensure protection of less sensitive fish species that are important to fish eating birds and to invertebrates that are important to many migratory bird species (note many of these species are expected to become endangered as climate change progresses).	ROP B-2 has been updated, based on public comments. The BLM may consider supplemental ROPs that are more restrictive for specific locations if baseline conditions change for sensitive fish species between issuance of this plan and a project proposal.
Bryan	David	_	27232	1	Range of Alternatives	The alternatives BLM offers are false, limited choices. All the alternatives lead to more extraction, and none do enough to protect our resources.	Alternative B would decrease the amount of land available for leasing, while Alternative A would keep it the same.

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Burcham	Janet	–	27276	1	Range of Alternatives	BLM's draft EIS for the "New" Plan unlawfully fails to consider real alternatives to the ConocoPhillips proposal. BLM could choose range from leaving the 2013 NPR-A IAP record of decision intact o The National Environmental Policy Act requires the BLM to consider alternatives to those proposed by industry. The draft EIS does not.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.
Mazzola	Lisa	–	26151	2	Range of Alternatives	The DEIS fails to consider any alternative that would halt or significantly limit leasing, and ultimately, production.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

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Senner	Stanley	–	27093	11	Range of Alternatives	p. 3-142 “Under all action alternatives, ROP F-3 and F-4 would require flight altitudes above 1,500 feet with 0.5 miles of raptor cliff-nesting sites and minimization of aircraft flights over the Goose Molting Area. Similar altitude restrictions 20 May to 20 August over the Teshekpuk Caribou Habitat Area and Utukok River Uplands Special Area would reduce disturbance of nesting and brood-rearing birds. Use of the Deadhorse airport, where traffic levels already are high and which is the primary hub for the North Slope oil industry, would increase both for passenger and freight flights, increasing potential for disturbance of birds locally and long term, although birds in this area already experience high levels of disturbance.” Comment: Why is there no minimum flight altitude over the Goose Molting Area, at least in July and August? Vague language that aircraft use “should be minimized from May 20 through August 20 is nearly worthless. How will BLM determine and enforce what is appropriate? Additionally, a modeling exercise that incorporates estimated increased aircraft traffic over and around the Goose Molting Area in relation to the physiological and energetic costs of that disturbance on molting geese would give a quantitative basis for assessing likely impacts on molting geese. As an example, see Miller (1991). This information is critical for informing BLM decisions about any activities on the ground or overhead at the Goose Molting Area.	ROP F-3 adjusted to require a minimum 1,500-foot altitude for flights in the NPR-A, unless doing so endangers human health and safety or violates safe flying practices. Flights requiring sight of the ground for operational purposes are exempt.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Stankus	Martin	–	5729	1	Range of Alternatives	This area is far too important to the survival of local wildlife and migratory birds to allow the road building, noise, and habitat destruction necessary for petroleum exploration. I would like to see an option that even further protects large landscapes in the Western Artic to allow wildlife and nearby communities to adapt to the ongoing climate change.	The range of alternatives considers making the entire special area unavailable for oil and gas leasing and development
Swearingen	Christin	–	29270	1	Range of Alternatives	Alternative B still removes protections for areas used by the Teshekpuk Lake Caribou herd during fall and winter. There is also an error in that it would close fluid mineral leasing in a southeast part of the Teshekpuk Lake Special Area which is already leased. A substantial portion of the area added in Alt B as closed to fluid mineral leasing in the southwest Teshekpuk Lake Special Area was just sold in the December 11, 2019 lease sale. A vast majority of the area set aside under Alt B as Lease deferral around Nuiqsut (no leasing for at least 10 years) is already leased.	Alternative B includes areas that are unavailable for leasing and have not yet been leased. The maps in Appendix A have been updated to show all currently held leases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wald	Michael	–	26043	1	Range of Alternatives	The summary for Alternative B is misleading and inaccurate. In stating that "Alternative B is similar to Alternative A, but it increases the land set aside for conservation" it implies that BLM is offering a full range of management options. It is not. By my analysis much of the land "set aside for conservation" under this alternative has already been leased! Further this implies that all areas have similar conservation value. Particularly in the example of Teshekpuk Lake, we know this to be untrue. BLM is required to offer a full range of management options to the public and to decision makers. This EIS fails in that regard and misrepresents the alternatives. Whether this false narrative is intentional or not is unimportant. The remedy is to re-start the process and offer a different version of Alternative B that actually provides protections for the most biologically important portions of the NPR-A.	Alternative B includes areas that are unavailable for leasing and have not yet been leased. The maps for Alternative B have been updated to show all currently held leases. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Land management actions do not stop while a plan is in review. All lease sales since 2013 comply with the 2013 IAP ROD until a new ROD is signed.

Z.3.33 Reasonably Foreseeable Development (RFD)

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	61	Reasonably Foreseeable Development Scenario (RFD)	Appendix B states that “a field with a daily production rate of 50,000 barrels of oil per day would require approximately 2 million gallons of water per day. Water resources are generally abundant across NPR-A.”392 This statement fails to account for what total water use might be in the NPR-A under the RFDS. If the High Scenario plays out with 500,000 BOPD (which is only 10% of the technically recoverable USGS estimate so actual production could be much higher), that means production would require 20 million gallons of water per day. This value likely would require construction of one or more seawater treatment plants, which would require more gravel use and would create a larger development footprint. This was no accounted for in the RFDS and impacts analysis. While water resources are abundant in the NPR-A, they are not limitless, and use of this water can have adverse impacts on fish. Table B-2393 needs to quantify water use for each of the scenarios under each of the alternatives and more fully analyze the impacts. ---------- 392 2 DEIS at B-6. 393 2 DEIS at B-11.	The Final IAP/EIS Appendix B calculations noting the peak estimated water usage, based on production rates, have been updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	70	Reasonably Foreseeable Development Scenario (RFD)	None of the existing and RFDS developments are portrayed on maps in the DEIS and they should have been. There should be a map drawn to scale showing the realistic and sprawling nature of oil development under the different alternatives and under the Low, Medium, and High Production Scenarios. Planned, proposed, and speculative developments on nearby lands such as Pikka and Horseshoe should be included as they may enable new entry points to the NPR-A for further development and are likely to further exacerbate the serious impacts already occurring to Nuiqsut. Such maps - which would show well pads, pipelines, gravel and ice roads and gravel mines, central processing facilities and other infrastructure - would allow the public to visualize and comment on the extensive nature of the RFDS.	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific locations. This plan makes no decision regarding the exact location of such corridors, and potential corridors shown on maps are shown for representational purposes only. Specific pipelines will be analyzed in a subsequent NEPA analysis when a pipeline project is proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	73	Reasonably Foreseeable Development Scenario (RFD)	Since publication of the 2013 IAP, there have been several changes involving the NPR-A that impact development of the RFDS. Substantial development has occurred since the adoption of the 2013 IAP. BLM cannot simply tier to the 2013 IAP's RFDS and analysis of impacts since much has changed since that time and more information is known now about the serious impacts to resources likely to occur from continued or expanded development in the Reserve. BLM has not adequately addressed or accounted for the full range of new information about these projects or the likely impacts in its RFDS.	The RFD scenario was prepared using the best available information at the time and has been updated with new information that has become available since the publication of the 2013 IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	63	Reasonably Foreseeable Development Scenario (RFD)	The RFDS Does Not Include an Industrial Center. No industrial center exists west of Kuparuk for oil field service contractors, marshalling of bulk goods, storage of large pieces of equipment, etc. It is likely that such a center, with associated gravel volumes and acreage, fuel use, air emissions, visual impacts, etc., would be needed to allow new developments to proceed, especially under a High Scenario. Industrial center impacts should be included in the summary tables in Appendix B and BLM needs to account for them in its overall analysis of potential infrastructure and impacts.	Space for storage and operations are included in the barge landing and storage area calculations. Other industrial center operations are expected to occur out of existing centers on the North Slope.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	69	Reasonably Foreseeable Development Scenario (RFD)	Tables B-2 and B-3 Provide Inadequate Summaries of RFDS Impacts. Tables B-2 and B- 3 appear to summarize the impacts of the RFDS but they provide a highly misleading portrayal of those impacts. While the tables include quantification of some key impacts, they leave out at least one key impact - water needs, as discussed above - and they are not labeled as representing only some of the RFDS impacts. Table B-2 should include the impacts of the Willow development in its oil production, surface disturbance, and gravel totals. Table B-3 also should include the Willow development in its gravel mine disturbance acreage. As for the existing developments, GMT-2 is not expected to produce its first oil until 2021.402 That development and its impacts also are “Reasonably Foreseeable” and have not been adequately accounted for in the RFDS. GMT-2's impacts should be included in Tables B-2 and B-3 and it should be considered as part of the RFDS. Appendix B should include tables reflecting all impacts that differentiate among alternatives, as discussed in Chapter 3 of the DEIS. -------- 402 North Slope Renaissance from ConocoPhillips Alaska, Projects: As Alaska's Largest Oil Producer, ConocoPhillips Continues to Invest in Projects on the North Slope http://alaska.conocophillips.com/who-we-are/projects/(last visited Jan. 3, 2020).	The Final IAP/EIS RFD has been updated to include water needs. Willow and GMT-2 are being permitted under the guidelines in the existing 2012 NPR-A IAP/EIS. Impacts from those projects do not vary by alternative. Willow and GMT-2 are included in the cumulative impacts section.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	76	Reasonably Foreseeable Development Scenario (RFD)	There are numerous problems with BLM's decision to tier to the 2013 IAP in the DEIS. First, it is unclear from this vague set of statements precisely what BLM is tiering to and what it believes is still valid versus in need of updating in the 2013 IAP. Second, there are significant questions about the validity of the assumptions and analysis in the 2013 IAP in light of new information. Because of the amount of significant new information that has come out about the amount of oil reserves and the likely scale of development in the Reserve since 2013, it is inappropriate for BLM to tier its development scenario and impacts analysis to the 2013 IAP. BLM needs to revise its development scenario and related analysis to take into account new information about the likely scale of oil development in and around the Reserve.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference. The IAP/EIS incorporates by reference the broad overview of potential impacts from the 2012 IAP/EIS; however, it does not incorporate by reference any quantitative analysis resulting from the alternatives.
Donahey	Leah	Alaska Wilderness League	29320	77	Reasonably Foreseeable Development Scenario (RFD)	[comment:29320-77; 204.0701]The newest leases are in an area that BLM identified in its analysis and maps as having only a medium potential for development.462 This latest move by North Slope Exploration demonstrates that there is a higher likelihood that industrial activities than BLM accounted for on that map and considered in its analysis. BLM needs to revise the map and update its analysis to take new information into account.----------462 See, e.g., 2 FEIS at E-4 fig.1.[comment end]	The RFD scenario was prepared using the best available information at the time and has been updated with new information from the 2019 Lease Sale.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	60	Reasonably Foreseeable Development Scenario (RFD)	The Low, Medium, and High Production Scenarios are Unsupported. The 2017 USGS Assessment of undiscovered, technically recoverable oil resources in the NPR-A ranges from 1.8 to 21.9 billion barrels of oil with a mean of 8.8 billion barrels.387 Recognizing that USGS did not develop economically recoverable quantities, BLM transformed the 2017 values into the Low, Medium, and High, i.e., economically recoverable, Production Scenarios described in Appendix B (not including Willow and other projects in the NPR-A as discussed previously).388 According to the DEIS, peak oil production would range from 120,000 BOPD for the Low Scenario to 210,000 BOPD for the Medium Scenario to 500,000 BOPD for the High Scenario. How BLM transformed USGS' Low, Mean, and High values into its Production Scenarios is not explained in the DEIS. BLM needs to explain the basis for how it made these determinations in a revised draft. ---------- 387 2017 USGS Assessment. 388 2 DEIS at B-8.	The RFD projections were based on the locations of expected economically viable reservoirs, the expected number of developments, the pace of facility construction, and production from existing facilities on the North Slope. The description of how these numbers were reached has been expanded in the Final IAP/EIS. Technically recoverable estimates have very little use in estimating oil production in Alaska.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	72	Reasonably Foreseeable Development Scenario (RFD)	Overall, the DIA demonstrates that the impact statistics reported by BLM in the DEIS in terms of acres of ground disturbance, miles of roads expected, and area within 4 km of the limited development components modeled underestimate the true expected effects, often severely. There are many reasons why surface disturbance and indirect effects are likely to be even greater than those we report here. For all these reasons it is critical that BLM reassess the expected levels of disturbance and impacts to species and employs quantitative techniques, such as those reported here, to better reflect the effects of altering the IAP in the NPR-A.	The results of this modeling effort are still preliminary and have not been peer reviewed as of the publication of the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	78	Reasonably Foreseeable Development Scenario (RFD)	A number of the leases also extend into the area BLM is proposing to make off limits to leasing under Alternative B. BLM needs to revise its analysis under Alternative B and elsewhere to account for this change. As BLM has noted in its analysis, the leasing restrictions under Alternative B and elsewhere will not restrict or apply to existing leases.463 This raises serious questions about how meaningful protections are likely to be if significant areas, such as this new block, are already leased. BLM also needs to consider how this shift impacts other parts of its analysis, such as its analysis of the potential impacts to subsistence users around Atqasuk. In BLM's Section 810 analysis, BLM recognizes that "[o]il and gas leasing and development within the area of medium development potential could affect harvester access, resource availability, and resource abundance for Atqasuk and could lead to a situation similar to that seen in Nuiqsut where the community is 'boxed in' by development."464 The latest lease sale and the activities that will foreseeably occur from industry moving ahead with exploration and other activities on these leases have the potential to make this a reality for Atqasuk. BLM needs to update its analysis to consider these foreseeable impacts throughout the DEIS.	Alternative B includes areas that are unavailable for leasing and have not yet been leased. The maps in Appendix A have been updated to show all currently held leases.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	256	Reasonably Foreseeable Development Scenario (RFD)	The Proposed Pipeline Corridors are Unnecessary. The representational pipeline corridors passing through the Teshekpuk Lake Special Area, two for Alternative B and one for Alternative C, are entirely unnecessary and inappropriate for these areas. Pipeline routes can access the offshore without intruding on highly sensitive wildlife habitat in this Special Area. The 2013 IAP does not include pipeline corridors and states, “This plan makes no decisions regarding the potential placement of a pipeline [to access offshore development] or any accompanying infrastructure within this corridor. It allows for an application to be filed, and it anticipates that such application would be subject to full NEPA review and decision.”386 At a minimum, BLM should be clear that it is not approving these corridors or making any decisions regarding them. BLM should not allow pipelines through sensitive areas around Teshekpuk Lake under any alternative. ----------- 386 2 2013 IAP Final EIS at 22.	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific locations. This plan makes no decision regarding the exact location of such corridors, and potential corridors shown on maps are shown for representational purposes only. Specific pipelines will be analyzed in a subsequent NEPA analysis when a pipeline project is proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	160	Reasonably Foreseeable Development Scenario (RFD)	A third issue with the analysis of impacts to caribou in the DEIS, related to the topic above, is the failure to adequately account for the impacts of the proposed Willow development in the DEIS. Appendix B lists the Willow project among the existing and probably upcoming development and infrastructure in the NPR-A888 and then goes on to say that "[p]lanned developments are discussed above and are not included in the production and disturbance calculations presented below."889 Similarly, aside from being mentioned as being currently in the permitting process,890 Willow is not discussed in the affected environment and environmental consequences section for terrestrial mammals. With the EIS process for the Willow Master Development Plan still underway and Willow not having been considered in the 2012 IAP, there is thus no robust consideration of the impacts of Willow on caribou, nor how this will be cumulative with existing infrastructure or potential infrastructure under the IAP alternatives. This omission needs to be clarified to better account for impacts to caribou under a revised IAP. -------- 888 2 DEIS at B-2. 889 2 DEIS at B-5. This is made even more explicit for Willow in 2 DEIS at B-8. 890 1 DEIS at 3-159.	The Final IAP/EIS was updated to include potential effects of the Willow development in the cumulative impacts section.

Z.3.34 Recreation

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	45	Recreation	Page #: 3-278, para 1 Table or figure: Reviewer Name/Agency: ADF&G Comment: Sentence reads: “While non-guided activities occur within the planning area, no data are available for these activities.” ADF&G, Division of Sport Fish does collect catch, harvest, and fishing effort information from license holders through the Statewide Harvest Survey (SWHS) program, which describes these metrics by locations fished by anglers who receive the surveys. Generally, recreational fishing is very low within NPR-A, and most of it occurs in the Colville River and its tributaries. Suggestion if applicable: State that sport fishing activity occurs at very low levels and cite http://www.adfg.alaska.gov/sf/sportfishingsurvey/	The Final IAP/EIS has been updated to incorporate data, as applicable, and to clarify locations and extent of sport fishing activity.
Bruno	Jeff	State of Alaska	29317	52	Recreation	Page #: General Table or figure: Reviewer Name/Agency: ANILCA Comment: The IAP incorrectly identifies non-subsistence hunting as either “non-local”, “sport” or “recreational” hunting. Suggestion if applicable: Please use the term “general hunting” rather than the terms “non-local hunting” (p. 3-153, 3-164, 3-172) or “sport hunting” (p. 3-232, 3-257) or “recreational hunting”.	The BLM recommends using “non-local,” “sport,” or “recreational” to describe the type of hunting and distinguish it from subsistence use.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	236	Recreation	BLM must consider how eliminating the Special Area will impact recreational use and values of the river corridor as well as consider how the removal of the area may create impacts to other areas of the Reserve. Relatedly, BLM acknowledges that displacement from some areas could result in concentration in visitor use in other areas, but its is not clear how BLM is proposing to manage this potential conflict and resulting impact to the environment.	The potential impacts on recreation from construction activities and operation are described for the Teshekpuk Lake and Utukok River Special Areas. BLM management addresses potential conflicts from visitor use on a case-by-case basis and subject to rules, regulations, and policies guiding the agency's implementation of recreation programs.
Donahey	Leah	Alaska Wilderness League	29320	237	Recreation	BLM also improperly concludes that because there are no winter special recreation permit holders, there would be no impacts to recreation from seismic exploration.1219 This is incorrect. There may be self-supported winter recreationists that would be impacted, and seismic activities leave trails and scars in the tundra after snow melt, may impact recreation experiences.	The Final IAP/EIS has been updated to clarify that seismic exploration could impact non-SRP activities and recreation quality for individuals not associated with a group activity.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	30	Recreation	ASRC would like to see the area along the Colville River be deferred from commercial hunting permitting to help protect subsistence resources. Frequent low level aircraft flying over and parallel to the river in conjunction with the actual hunting, can serve to impact wildlife. We have heard from North Slope residents that frequency and altitude of aircraft is an issue. We would expect that commercial recreational and commercial hunting activities would be held to the same standards as industry. Flight routes, frequency and other information should be provided to local communities. ASRC also assumes and expects that these activities would also be subject to ROP H-3: “Hunting, Fishing, and Trapping by Permittees” to help mitigate their impacts.	ROP H-3 applies to all permittees. The State of Alaska establishes the open season for sport hunting. It would be inappropriate for the BLM to effectively circumscribe the open season by limiting the time period for which sport hunting guides may obtain permits.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	23	Recreation	Commercial Recreation and Commercial Hunting Aside from all the focus on oil & gas development, commercial recreation and commercial hunting activities will be also covered under this new IAP for NPRA. These commercial activities do have impacts on our communities and individual shareholders out on the land subsisting. This is an issue that ASRC has only just begun to look into due to the time needed to review and digest each alternative related to oil and gas development. Commercial recreation and commercial hunting activities also must be reviewed for possible deferral areas, specific permit stipulations and required operating procedures to protect subsistence resources.	The State of Alaska establishes the open season for sport hunting. It would be inappropriate for the BLM to effectively circumscribe the open season by limiting the time period for which sport hunting guides may obtain permits.

Z.3.35 Requires Detailed Review

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Patkotak	Blair	Wainwright	29323	1	Requires detailed review	I'm looking at Alternative A, talking about leasing, and I see that Nuiqsut has a lease deferral for no leasing for at least ten years. What's the process on doing that if we want to extend like Wainwright corporation lands? Can we extend certain areas if we want no leasing done?	The BLM is considering a leasing deferral area around the City of Nuiqsut.

Z.3.36 Sand and Gravel Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	1	Sand and Gravel Resources	Page #: Gravel restrictions in NPR-A Table or figure: Reviewer Name/Agency: ADNR Comment: DNR opposes the restrictions of any gravel resources at the planning level. Sand and gravel is a scarce resource within the NPR-A and essential to future community and other necessary infrastructure projects. A gravel restriction at the planning is not capable of doing a comparative analysis of other alternatives and could result in a project developing gravel resources from more impactful locations. Decision(s) of this nature should be left to the NEPA/EIS process to address and analyze alternative gravel sources at the time of permitting. Inclusion of any gravel restrictions at this time could result in federal agencies being forced to select project alternatives that incur more environmental impacts and require project to be developed in a less efficient manner. Alternative analysis in the NEPA and the EIS process are designed to assure that the project will choose the least impactful project. This restriction usurps that process and has the potential to increase unnecessary impacts and cost to the region.	Sand and gravel mining would be authorized on a case-by-case basis and can be considered anywhere in the NPR-A, with the exception of the 3-mile Fish Creek setback. The Fish Creek setback prohibits sand and gravel mining due to the creek's importance to the City of Nuiqsut for winter caribou harvest.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
McGuire	Rebecca	Alaska Shorebird Group	27169	19	Sand and Gravel Resources	Aside from a 3-mile setback near Fish Creek, BLM would allow sand and gravel mining throughout the decision area (i.e., the entire NPR-A) under all alternatives on a case-by-case basis.65 Sand and gravel mining results in large scale environmental damage. We recommend further restrictions that limit mines to areas deemed less sensitive to wildlife and to the fewest number possible to accomplish needed objectives. 65 NPR-A IAP/EIS p. 2-5.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.
Donahey	Leah	Alaska Wilderness League	29320	107	Sand and Gravel Resources	It is also deeply disturbing that the EIS does not contain a limitation on where gravel mining can occur under any of the action alternatives. In other words, regardless of whether the area is subject to a surface use restriction, timing limitation, leasing restriction, is part of a Special Area, or is subject to some other protective measure, BLM indicates it could be open to gravel mining. Gravel mining in these areas is not constituent with BLM's obligation to provide maximum protection for important values in the Reserve. BLM should consider other, more protective alternatives with regard to gravel mining and should not allow sand and gravel mining in areas where non-subsistence infrastructure is prohibited under any alternative.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	109	Sand and Gravel Resources	BLM also fails to analyze or discuss the full range of activities associated with gravel mining, which are also likely to have impacts on nearby communities and sensitive resources. BLM provides only a passing reference to the fact that "investigations specific to material source development would be completed as part of the exploration and development phases of alternative development."699 However, as shown by ConocoPhillips' recent proposals to look for gravel sources for Willow, the level of activity associated with these geotechnical surveys is significant.700 In one instance, ConocoPhillips proposed to drill dozens of boreholes and to run man-camps across a vast area, including in sensitive areas within the boundaries of Teshekpuk Lake Special Area and nearshore in Harrison Bay.701 The DEIS fails to analyze the full range of impacts and activities associated with these geotechnical surveys. --------- 699 1 DEIS at 3-59. 700 See, e.g., ConocoPhillips, Inc., Request for Right of Way - 2020 Willow Development Engineering Studies and Activities in the National Petroleum Reserve Alaska: Proposed Action (2019); ConocoPhillips, Inc., Proposed Action, Permit No. DOI-BLM-AKR00000-2019-0003EA (2018) [hereinafter CPAI 2018 Gravel Proposal]. 701 CPAI 2018 Gravel Proposal.	The Final IAP/EIS has been updated. The BLM has assessed the effects of gravel mining on near-field air quality in the NPR-A by using results from a large proposed future project in the NPR-A (i.e., the Willow MDP EIS), which includes gravel mining.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	106	Sand and Gravel Resources	BLM states that under all action alternatives, it would consider permitting sand and gravel mining, unless it is within the Fish Creek 3-mile setback.690 BLM says this means that over 22-million acres of the Reserve would be open to sand and gravel mining, but concludes that "this acreage will most likely be limited to approximately 3.8 million acres."691 BLM does not provide an explanation for how it made this 3.8-million acre determination and does not provide any indication of where this 3.8-million acre area is located. BLM needs to provide additional information about the location of the likely gravel resources. BLM's failure to do so makes it challenging for the public to understand where there are likely to be impacts from gravel mining and calls into question whether BLM has fully analyzed the impacts based on the likely locations of any gravel mining. BLM's analysis is completely untethered from any location-specific analysis, even though there are areas such as the northeast corner of the Reserve where BLM knows gravel mining has been or will occur. BLM needs to analyze the likely impacts in that area since those direct, indirect, and cumulative impacts are foreseeable. Its failure to do so violates NEPA. --------- 690 1 DEIS at 3-59. 691 1 DEIS at 3-59.	At the programmatic level, the BLM does not have enough information about where infrastructure, such as gravel mines, will be located to analyze specific locations. This plan makes no decision regarding specific mine locations, with the exception of closing the 3-mile Fish Creek setback to sand and gravel mining.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	111	Sand and Gravel Resources	BLM assumes in the DEIS that community-based infrastructure projects would likely have the greatest impact on gravel resources since they would connect communities within the program area. BLM does not provide a basis for this statement and fails to quantify what the impacts might be from community roads. It also does not account for the gravel mining and infrastructure that is likely to be concentrated around Nuiqsut and existing and expanding industrial developments in the northeast corner of the Reserve.	Excluding oil and gas activities, community-based infrastructure projects would likely have the greatest impact on gravel resources. See Section 3.2.10. for more details.
Donahey	Leah	Alaska Wilderness League	29320	253	Sand and Gravel Resources	Probable Gravel Needs Under the Three Scenarios are Understated. Appendix B assumes that gravel pads would be constructed with a minimum 5-foot thickness, based on data from GMT-1.394 Oil Search's more-recently developed Nanushuk pads are designed for 6' of gravel, however, to address warming resulting from climate change.395 As a result, much more gravel for pads may be needed than calculated in Tables B-2 and B-3. BLM needs to update its analysis to account for increased gravel needs resulting from the foreseeable impacts of climate change. ---------- 394 2 DEIS at B-6. 395 ARMSTRONG ENERGY, LLC, NANUSHUK DEVELOPMENT PROJECT: PROJECT DESCRIPTION at 6 (2017).	Assumptions regarding potential barge landing locations have been re-examined and included, as appropriate, in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	108	Sand and Gravel Resources	BLM also failed to quantify or analyze the full scale of gravel mining impacts to other resources in the Reserve. Gravel mining has very serious impacts that BLM failed to consider in the EIS. Gravel extraction is generally done in large, open pit mines typically located away from major streams and lakes. Open pit mines require extensive overburden removal - for example, over 50 feet of vegetation and soil needed to be excavated to reach suitable gravel in the mines created for Kuparuk.695 The resulting overburden stockpile disturbs tundra, and the gravel pit itself causes permanent changes to the area's thermal regime due to “thaw bulbs” forming in the permafrost around the unfrozen water during flooding.696 Indirect effects such as these have led some researchers to approximate that a one acre (0.4 ha) gravel pit may impact as much as 25 acres surrounding the site.697 BLM makes no attempt to quantify that disturbance in light of the gravel mining it assumes will occur. BLM fails to even discuss the indirect and far broader range of impacts to the sensitive ecosystems surrounding these mines. BLM only acknowledges the direct footprint of mining itself based on the number of cubic yards of gravel that might be necessary.698 -------- 695 Sullender at 3. 696 Id. (internal citations omitted). 697 Id. (internal citations omitted). 698 1 DEIS at 3-60.	Sand and gravel mining is addressed as an impact common to all alternatives in Section 3.2.11. The analysis includes the impact of thaw bulbs and flood impoundment. Gravel mining would also be subject to permitting and regulation. The acreage needed for overburden storage and other operational requirements is included in the mine disturbance acreage. Estimating changes to thermal regime and water flow patterns for individual locations is beyond the scope of this document, as mine locations are not yet known. NEPA analyses conducted on mine proposals should include these details.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Lubetkin	Susan	–	27324	113	Sand and Gravel Resources	Given the disparities in the low case, I used simultaneous equations to solve for the amount of infrastructure required to result in the listed amounts of acres disturbed and gravel required. I assumed that the difference would be based on the number of satellite pads and road miles and that the amount of pipeline miles would equal the number of road miles. Let a = difference in number of satellite pads and b = difference in number of road miles and pipeline miles. Then 15a + 7.54 b = 638 acres 150a + 41 b = 3970 K yd3 gravel which simplifies to the low scenario having an additional 7 satellite pads and roughly 70 more road miles. If we check the math, we find the values in Table 9, which, while not a perfect match to the values given in Appendix B, are much closer.	There was a mistake made in the calculation of the low case hypothetical scenario. Thank you for bringing it to the BLM's attention. The Final IAP/EIS has been updated.

Z.3.37 Seismic Testing

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	102	Seismic Testing	Another source of spill data and analysis that BLM should utilize is a State of Alaska report completed in November 2010.683 The authors reviewed over 6,000 North Slope spills from 1995-2009 and the report showed that there were 44 loss-of-integrity spills each year684 with 4.8 of those each year greater than 1,000 gallons,685 meaning that there is a spill of 1,000 gallons or more nearly every two months. --------- 683 NUKA RESEARCH & PLANNING GROUP, LLC, NORTH SLOPE SPILLS ANALYSIS: FINAL REPORT ON NORTH SLOPE SPILLS ANALYSIS AND EXPERT PANEL RECOMMENDATIONS ON MITIGATION MEASURES, FOR THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION 244 (2010), available at dec.alaska.gov/media/7570/nssa-final-report.pdf. 684 Id. at 21. 685 Id. at 23.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.
Monsell	Kristen	Center For Biological Diversity	27356	10	Seismic Testing	The Draft EIS also fails to take a hard look at the direct, indirect, and cumulative impacts of induced seismicity from drilling and fracking under the IAP. The Draft EIS is therefore unlawful.	Based on the geology of the planning area, and the seismic history of the western North Slope, no seismicity is expected. No continuous hydraulic fracturing is expected because no economically viable tight shale reservoirs exist in the planning area.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Trupp	Rick	SAExploration	27290	7	Seismic Testing	In Chapter 3, there are many references to seismic as it relates to the environment, relating to noise, concerns, impacts to vegetation, wildlife and subsistence lifestyle. Some of those references reflect older invasive practices that no longer exist. SAE has made tremendous efforts over the past decade to improve the quality and efficiency in seismic to minimize the environmental footprint of their activities and of the stigma associated with older practices. In 2012, SAE partnered with the Kuukpik Corporation, the village corporation that is one of the private landowners in the NPRA. Our partnership was entered into for the purpose of performing contracts for the acquisition and development of geophysical seismic data along with associated services and to “raise the bar” in environmental and subsistence protection during acquisition services. In 2012, we embraced wireless technology over cable technology for recording devices and have considerably reduced the need for the larger vehicles to carry the recording devices. All the recording devices (nodes) are now moved using SnoCat Tuckers, aluminum sleds and/or snowmachines in the sensitive areas. Batteries in these units have now diminished to the size that are used in cellphones, rather than the size of batteries used in cars. SAE also made major environmental modifications in the	The Final IAP/EIS has been updated to encompass modern seismic techniques.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	way they operate by making the camps lighter and using rubber tracks on some of the multi-use trailers that deliver fuel, mechanical and recording units. Today, in 2020, we continue to test newer low impact rubber tracked vehicles approved for tundra use like the Kubota ATV, the Sherp and the Piston Bully. For spill detection, we've took the initiative to build custom containment under all vehicles and in 2017, installed Forward Looking Infrared (FLIR) cameras on all of our vibratory equipment to more quickly recognize if there were leaks behind the vehicle while travelling. And finally, with the advancements in data processing, new methodologies allow for simultaneous acquisition (Source Driven Shooting - SDS) of source points with minimal temporal and spatial separation, then uses a de-blending method to separate individual shot records during data processing. Techniques like these have resulted in a big step change in data quality when compared to legacy data sets using fleets of multiple vibrators. The efficiency of simultaneous sourcing provides a significant increase in both source points and trace density, and therefore a notable improvement in signal-tonoise ratio (S/N).	*(see above)*

Z.3.38 Sociocultural Systems

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	148	Sociocultural systems	Many of the quotes in the draft EIS describe concerns that are mitigated by current requirements or best practices, yet BLM provides nothing to corroborate the concerns, acknowledge existing mitigation, or discuss resolutions. In many cases, the statements do not indicate that they represent a widely shared belief, and thus do not even quality as “local knowledge.” The authors of the IAP/EIS Appendix Y “Compilation” caution that some quotes may describe effects no longer applicable due to changes in methods. For example, advancements in seismic technology have eliminated cables and reduced the amount of equipment required to gather better data. BLM seems to have missed an opportunity to describe these types of innovations and best practices employed by industry to help mitigate previously observed impacts or explain how the proposed BMPs/ROPs have been developed as a result of the input. Instead of using the statements in a contextual analysis, BLM often leaves outdated or incorrect statements unanalyzed, which contributes to misleading impressions. The error is compounded in cases where BLM's own conclusions are based in part on such testimonials. ConocoPhillips recommends that	“Quoting testimony” is not a new practice in EISs. It resulted from stakeholder comments that local observations and traditional knowledge needed to be incorporated in EISs. The quoted testimonies have been removed from Chapter 3 of the Final IAP/EIS and have been replaced with summaries and references to see the Traditional Knowledge, Appendix Y.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	148 *(cont.)*	*(see above)*	BLM apply greater analytical rigor and balance to this new practice of quoting testimony.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	224	Sociocultural systems	The DEIS does not have a mitigation measure that accounts for preservation of ethnographic resources. BLM should address this in the DEIS. Changes to landscapes and resources can affect cultural identity and the significance of properties to communities.1155 For example, increased interaction with workers or a change in available foods or resources may shape individuals' ties with their cultural identity. Similarly, seeing infrastructure or ingesting or inhaling pollution may change how individuals visit cultural sites. Such a mitigation measure could require the agency to receive guidance from villages on how their communities would like to interact with the influx of workers and development and could make strides to honor these concerns and requests as much as possible. 1155 Id.	ROPs E-1, E-17, G-1, H-1, H-2, H-3, and H-4 provide protections for ethnographic resources.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Tagaban	Austin (Naaweiyaa)	Anchorage	27916	1	Sociocultural systems	I would ask that you produce a cultural impact statement speaking about the impacts of your actions on the people who live in this place, who live in Alaska, who hunt and fish in these areas, whose families have lived there for thousands of years and who have a deep relationship with the caribou herds that you speak about and with the fish and with the waterfowl who travel from all over the world to be there and who are incredibly important to the survival and lifeways of the Inupiat people.	The impacts to Inupiaq culture resulting from decisions in this IAP/EIS are described in the sociocultural systems analysis, Section 3.4.4.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Ahngasuk	Margaret	Atqasuk Corporation	29287	5	Sociocultural systems	Create feasible opportunities for community interconnectedness One of Atqasuk Corporations current business opportunities is providing freight services from Utqiagvik to Atqasuk and Wainwright overland by the Community Winter Access Trails (CWAT). This service relieves some of the pressure of relying solely on air transportation for delivery of mail, goods, and food. Freight and mail is often held up at the hub sites of Deadhorse and Utqiagvik due to inclement weather, aircraft maintenance, and cold conditions. To date, we have delivered thousands of pounds of freight, including a truck, via the CWAT trails. We hope that as the final IAP EIS is developed, opportunities such as these are expanded and not minimized through burdensome stipulations and barriers. The CWAT program is only able to operate through use of existing industry infrastructure and we are eager to see that infrastructure expand in the future to facilitate access and encourage more creative and adaptive business opportunities.	None of the alternatives considered in the IAP/EIS would prevent additional industrial infrastructure being built.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	124	Sociocultural systems	Page 3-255 Lack of inclusion of North Slope Borough's importance to the community. This section fails to mention or discuss the North Slope Borough and its importance to the communities as well as providing local regulatory oversight of development. This entire section needs to be revised to discuss the North Slope Borough and what it brings as far as revenue, employment, community services, schools, and oversight to the local residents.	The Final IAP/EIS was updated to clarify the role of the North Slope Borough in social and political organization.
Schell	John	ConocoPhillips Alaska	29272	125	Sociocultural systems	Page 3-257 Bullet List needs expansion to include contemporary societal changes and influence. This list fails to include other societal changes, such as the technological changes on page 3-261 (internet, cell phones, shipping and transportation needs, social media) that are also having a significant impact on culture in rural Alaska.	The Final IAP/EIS was updated to address societal changes and influence of technological changes.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
NAVARRETTE	Rikki	Kuukpik Corporation	29284	31	Sociocultural systems	a community road would dramatically alter the status quo in Nuiqsut, Utqiagvik, Atqasuk, and probably other communities, each of whom would see increased traffic in previously inaccessible areas. The potential impacts of all that traffic is only beginning to be analyzed, and the results are mixed so far. Kuukpik therefore urges BLM and local stakeholders to continue the ongoing dialogue on this issue so everyone can more fully understand what this proposed community road would mean for each community and determine whether the impacts and risks can be reduced enough to make its benefits outweigh its negative impacts.	Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	55	Sociocultural systems	As far as Kuukpik can tell so far, the benefits of a road along either route are mixed, at best. The two most obvious benefits would be facilitating vehicle travel to and from Utqiagvik (and perhaps other communities) and increased subsistence access in the northern NPR-A. Certainly this would benefit Utqiagvik residents, which Kuukpik supports. Vehicle access could help bring down the cost of acquiring store bought goods, shipping freight, and traveling outside Utqiagvik to visit friends and family elsewhere.62 The Draft EIS even suggests it could increase employment in Utqiagvik (though we question how many jobs such a road would actually facilitate in the grand scheme of things).63 Utqiagvik residents already use much of the	The BLM agrees that a road or other transportation system connecting communities across the North Slope would have mixed effects, and both the adverse and beneficial effects on communities are described in the IAP/EIS. The low-income metric in Table V-1 is based solely on the number of individuals living in poverty in the previous 12 months. Please note that both the race/ethnicity and low-income metrics in this table were used only for the purpose of initial community screening. These metrics did not affect the determination of disproportionate high and adverse impacts on the minority and low-income populations in those communities for each alternative.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	55 *(cont.)*	*(see above)*	area between the community and Teshekpuk Lake for subsistence. So a permanent road across this area would make those subsistence practices safer and more efficient. Obviously Kuukpik wants all North Slope communities to enjoy those benefits if possible. 62 2019 NPR-A IAP DEIS, p. 3-260. 63 This isn't to say Kuukpik and other North Slope residents don't value even modest increases in job opportunities. Even slight increases in good paying jobs can significantly improve an entire family's living situation, opportunities for subsistence, etc. This is as important in Nuiqsut as it is in Utqiagvik given the even higher unemployment rates in the village (14% in Utqiagvik vs. 23% in Nuiqsut, according to Table V-1). Kuukpik questions the Draft's conclusion that Nuiqsut's low income population is not an “area of potential concern” (Table V-1). What standard was used to reach that conclusion when Utqiagvik, with its 2% higher poverty rate, was described as “of concern”? Fairbanks has a higher rate than Utqiagvik, yet it received the same conclusion as Nuiqsut (i.e., not of potential concern), suggesting some inconsistency in how this standard is applied.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
NAVARRETTE	Rikki	Kuukpik Corporation	29284	30	Sociocultural systems	The Final EIS should include some discussion and analysis of alternative road routes so people can properly evaluate the relative risks and benefits of various alternatives.	At the programmatic level, the BLM does not have enough information to analyze specific locations about where infrastructure, such as roads, will be located. This plan makes no decision regarding the exact location of such roads. Specific roads, including alternative routes, will be analyzed in a subsequent NEPA analysis when a project is proposed.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	73	Sociocultural systems	All these developments would increase the pressure and risks to all species that depend on the area around the Lake. This is yet another reason to keep these areas off limits for now and a serious issue that has to be considered before a road is approved. The risks aren't limited to Nuiqsut. The Draft EIS points out that a road system between Nuiqsut and Utqiagvik could seriously impact caribou availability for residents of Atqasuk and Wainwright without providing the countervailing benefit of being connected to the road for travel, hunting, or any other purpose.68 Alternative B would change this calculus even more (in ways the Draft EIS doesn't explore at all) because, apparently, the surface use restrictions in that alternative would likely force the community road to be re-routed past Atqasuk instead, bringing greater impacts but also some benefits to that community.69 We don't know whether that would ultimately be a net positive or negative, but it's yet another question that would need to be analyzed in more detail	Analysis of a road north of Teshekpuk Lake was included at the request of a cooperating agency. This plan makes no decisions about the routing of such a road, and any proposal would be subject to additional NEPA analysis. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	73 *(cont.)*	*(see above)*	before deciding whether the proposed community road is a good idea. 68 2019 NPR-A IAP DEIS, p. 3-252. 69 We confess we don't understand the rationale for some of the Draft EIS's assertions regarding the proposed community road, including this point about Alternative B.	*(see above)*
Fisher	Kevin	North Slope Borough	29290	17	Sociocultural systems	BLM must ensure that the Final IAP/EIS accommodates these types of community infrastructure projects. In addition, BLM should pursue opportunities to streamline the permitting process and reduce potential conflicts with areas considered for oil and gas development. This could include designating one or more defined corridors within the NPR-A for community infrastructure projects to promote shared use and reduce impacts and development conflicts. These corridors should accommodate, for example, future transportation and infrastructure routes identified by the ASTAR project, the location of the Community Winter Access Trail being constructed annually between Prudhoe Bay and Utqiagvik and from Utqiagvik to Atqasuk, and the possible construction of a natural gas line to Atqasuk.	Under all action alternatives community infrastructure can potentially be permitted anywhere in the NPR-A.
Patkotak	Hugh	Olgoonik Corporation	29297	3	Sociocultural systems	The CWAT, ASTAR and other community access projects are important to our community and should be considered in this management plan.	The IAP/EIS does not prohibit permitting of any of these projects.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Henry	Lupita	Point Lay	27301	11	Sociocultural systems	We're impacted. Where is our impact fund? And if you're talking that the borough gives you impact fund, it's a little $250,000 impact fund. How much can that help this little 300 tribe? In which way? All that money that's coming out of our land that we're getting impacted socially, emotionally, physically, where is it?	The NPR-A Impact Mitigation Fund is managed by the State of Alaska and can provide grants to city and borough governments. Fifty percent of all royalties from lease rentals and development go into this fund.
Henry	Lupita	Point Lay	27301	10	Sociocultural systems	I would like to know what is the borough's role in all this NPR-A, because we work with the borough.	The North Slope Borough is a cooperating agency in the development of this IAP/EIS.
Little	Suzanne	The Pew Charitable Trusts	26136	2	Sociocultural systems	Consultation with Arctic Residents and Inclusion of Traditional Knowledge. BLM must provide time in the process for meaningful opportunities for participation by local communities, governments, tribes, co-management organizations, Alaska Native Claims Settlement Act (ANCSA) corporations, and similar Alaska Native organizations. Any governance framework needs to incorporate consultation well in advance of management decisions and include a strategy for sharing information and providing feedback about Indigenous resident's concerns. The process should fully incorporate indigenous peoples' knowledge, a way of understanding that goes beyond observations and includes interwoven knowledge on physical, chemical, biological, and social systems that includes practices and beliefs. It is imperative to reach out to each	In development of the Final IAP/EIS, the BLM is continuing consultation with ANCSA Corporations and has reached out to consult directly with relevant Alaska Native organizations.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	2 *(cont.)*	*(see above)*	community to ensure that this knowledge is appropriately considered throughout the process. Greater involvement by Arctic peoples in the governance of their regions and communities allows their knowledge to benefit modern institutions. These approaches can help in the development of long-term solutions to economic and environmental challenges in the Arctic. We note the absence of indigenous knowledge holders on the agency's interdisciplinary team responsible for drafting the IAP documents.7 7 NPR-A IAP/DEIS Volume II, C.3 - Page C-3	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	10	Sociocultural systems	Nuiqsut Deferral Area VOICE is aware that Nuiqsut endures the most impacts of development and faces intense pressure from outside groups including industry, environmental Non-Governmental Organizations, and federal agencies endeavoring to manage the land. For these reasons, VOICE supports a Nuiqsut Deferral Area similar to the area outlined in Alternative B to allow for a pause in leasing around the community to allow them time and space assess their relationship with development and its impacts - both positive and negative. VOICE feels that a 10-year deferral around Nuiqsut might limit opportunities for future community leaders and that a shorter deferral, such as 5-years with the opportunity for a 5-year extension following conversations and consultation with the community at that time, provides for a more adaptive management regime and greater flexibility in the future.	The BLM is considering a leasing deferral area around the City of Nuiqsut in Alternative B and a leasing deferral for the caribou migration corridors around Teshekpuk Lake in Alternative E (Preferred Alternative). The Final IAP/EIS has been updated based on public comments and community engagement to show the new deferral area boundary.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Warren	Julianne	_	5650	1	Sociocultural systems	With regard to proposals for new management plans for the Western Arctic (Integrated) Activity Plan within the NPR-A. To begin with, this land was never ceded by Inupiat, Gwich'in or any other Alaska Native Nations to the U.S. Government. And, the current management plan falls short on protections, the proposed rewrite will put crucial areas in danger. Nuiqsut is currently in a lawsuit with BLM for inadequate health and environmental impact protections within the NPR-A. There are major projects that have protested by local communities without commutative health impact studies and knowledge. There are currently lease sales happening, along with the Arctic National Wildlife Refuge lease sales happening soon. BLM needs to allow enough time to process, understand, and comment on these massive projects that will greatly affect the Iñupiat People, many other Indigenous Peoples of Alaska, and Alaskans. All materials need to be translated into Alaska Native languages of those directly affected.	In development of the Final IAP/EIS, the BLM is continuing Native consultation with Tribes and ANCSA Corporations and has reached out to consult directly with relevant Alaska Native organizations. Development in the Coastal Plain of ANWR is evaluated as a cumulative action in the IAP/EIS. No communities have asked the BLM for translated materials.

Z.3.39 Soil Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	67	Soil Resources	Page 3-55 Paragraph 3 Thermal regime of soils Regarding snow accumulation which changes thermal regime of soils and permafrost: "...where snow fences are placed to increase snow accumulation for winter tundra travel." When snow fences are used for tundra travel purposes, they are in place for a short time and once the snow has accumulated, the ensuing tundra travel over the snow reduces the insulating properties. Thermal regime change is appropriate for snow fences used for other reasons (i.e. to protect communities or infrastructure from massive drifting) but not in the case of catching snow for tundra travel.	The BLM has clarified the wording to not specify that snow fences be used for tundra travel.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	68	Soil Resources	Page 3-55 Paragraph 6 Thermal regime of soils This paragraph overstates “direct impacts to soil, thaw depth, and vegetation” from ice roads and tundra travel. The cited 2014 Yokel report examines seismic lines and ice roads from 1999 and 2000, and the cited Jorgenson report evaluated seismic lines from 1984 and 1985. Ice road construction techniques (to include careful prepacking and thermistor use) have advanced greatly in the last 30 years. Careful prepacking with equipment approved for summer tundra travel (e.g., low pressure vehicles such as Rolligons) can result in very little impact to tundra vegetative mat from ice road construction. Seismic programs conducted in the last 20-30 years have been executed with very little impact to tundra vegetation. A Anchorage Daily News article [https://www.adn.com/business-economy/energy/2019/02/02/companies-stretch-frozen-roads-across-alaskas-north-slope-as-hunt-for-oil-ramps-up/], reports that ice roads are typically constructed properly and ADNR doesn't believe they have any long-term impacts. ADNR land manager Melissa Head was quoted in the article saying “Evidence of the roads -- the packed routes take longer to melt than surrounding tundra -- dissipates within one to two years when constructed properly, as they usually are.” “We don't think it has long-term impacts,” she said.	The BLM made no change to the analysis based on the data consistently used for another recent North Slope EIS. The language was updated to address modern seismic equipment and reduced impact.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	69	Soil Resources	Page 3-56 Paragraph 1 Refers to old seismic practices (e.g., studies of seismic surveys of 1984- 1985 performed in ANWR 1002) During seismic surveys in the 1980's, the heaviest vehicles on a seismic crew (e.g., vibe - 90,000 lbs.) often traveled together on the same track, in groups of 3 to 5. Current technology has reduced this to just one heavy vehicle in an area. BLM should reconsider the approach to analyses of impact from seismic survey; it seems all instances of impact analysis in the DEIS refer to studies or observations of seismic surveys conducted in the 1980's in ANWR or cite “local knowledge” as actual impact. Seismic survey technology and practices have greatly improved since the 1980's and this information should be reflected in the EIS.	The Final IAP/EIS has been updated to encompass modern seismic techniques.
Fisher	Kevin	North Slope Borough	29290	6	Soil Resources	BLM should consider shoreline protection from continued erosion along the Beaufort Sea coast as a mitigation measure for industrial activities north of Teshekpuk Lake.	The ROPs included in this plan represent the base level requirements that will apply to all permittees in the NPR-A. The BLM may consider supplemental ROPs that are more restrictive for specific locations when permitting specific projects.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Henry	Lupita	Point Lay	27301	13	Soil Resources	We do face coastal erosion, and if it's real significant across our whole region and with the rise by 2050 they say there's supposed to be a significant rise in the water levels. A lot of our communities across the coast are going to have to move inland. So is BLM prepared to understand that that's a future need for all of our coastal communities for integrating that into that activity plan?	Under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. This exception would cover everything from small scale projects, like communication towers, to wholesale community moves.

Z.3.40 Solid and Hazardous Waste

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	17	Solid and Hazardous Waste	We recommend that the Final EIS also include analysis of the anticipated need for new underground injection wells to be drilled for disposal of wastes from field operations, the likely number of wells, how fluids would be transported to disposal well sites, potential impacts associated with the wells and the transportation, and how groundwater aquifers will be protected. The Draft EIS notes in Section 3.2.12 Solid and Hazardous waste that "[a]ll alternatives would use injection Class 1 and Class 2 wells to dispose of wastewater, produced water, spent fluids, and chemicals," however, no additional detail is provided to characterize the anticipated use of underground injection wells or to disclose the potential impacts.	This analysis is inappropriate for a programmatic-level planning document. When a specific project is proposed, the quantity and type of pumpable waste product to be disposed of will determine the class and number of injection wells. Each project proponent will have to do an analysis prior to using injection wells for disposal purposes and to identify the injection zone. The method used to transport pumpable waste to injection wells will also be tailored to a specific project. Each project proponent will be required to comply with federal and state regulations and procedures, which require the injection zone be in a confining formation below the lowermost underground source of drinking water; if the waste contains hazardous materials, the proponent must demonstrate the waste will remain in the injection zone for over 10,000 years or until it is rendered nonhazardous.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	260	Solid and Hazardous Waste	No Analysis of Hazardous Chemical Releases. The DEIS does not include any discussion or analysis of hazardous chemical releases, which can injure workers and impact the environment. These chemicals are used and stored onsite and are trucked to the facilities in bulk, so releases can occur onsite or during transport. The chemicals involved include methanol, glycol, biocides, corrosion inhibitors, drag reducing agents, surfactants, and diesel. BMP and ROP A-3 mention these types of releases, but the DEIS does not contain any analysis of the likelihood of releases and their impacts. The Alaska Department of Environmental Conservation's spill database401 contains extensive information on North Slope spill reports for these chemicals and BLM should utilize this information to quantify release likelihood and assess impacts. -------- 401 State of Alaska Dep't of Envtl. Conservation, PPR Spills Database Search, https://dec.alaska.gov/Applications/SPAR/PublicMVC/PERP/SpillSearch (last visited Jan. 1, 2020).	The Final IAP/EIS Appendix I and the discussion in Section 3.2. have been updated to include hazardous and extremely hazardous substance projected spills.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	71	Solid and Hazardous Waste	Page #: 3-76 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph two on this page discusses the status of legacy wells but cites information contained in the 2013 EIS. Are we to assume that there has not been any recent cleanup activity on these legacy wells in the last six years? Suggestion if applicable: Please include any recent activity on legacy wells in the past six years.	There have been at least 23 legacy wells that have been plugged and abandoned in place since 2013.
Donahey	Leah	Alaska Wilderness League	29320	99	Solid and Hazardous Waste	Appendix I fails to take a “hard look” at the spill projections of the NPR-A. Within the introduction of this section BLM lists seven referenced documents and writes: “Though the details differ among several of the documents, the basic data are generally similar.” Such a statement exemplifies BLM's shortcomings pertaining to their spill analysis. For BLM to meaningfully take a “hard look”, these spill projections should be specifically calculated with current information and analyzed for the purposes of this land management plan. That vague statement is insufficient to show BLM took a hard look at the information or that BLM adequately informed the public about the risks.	Spill projections were created using the most recent data on the North Slope from the Alaska Department of Environmental Conservation. Older documents were used as a comparison to see if spill rates had changed over time, or if spills data was missing from ADEC records.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	100	Solid and Hazardous Waste	The documents that are referenced are outdated, including one that is more than 20 years old. For large oil spills, BLM says the historical spill rate is 0.65 total spills per billion barrels of oil produced.680 For small oil spills, BLM says the estimated rate is 187 spills per billion barrels produced.681 This analysis is inadequate, as the spill data have not been updated by BLM for roughly ten years. We request that BLM use the most recent North Slope spill data available from the Alaska Department of Environmental Conservation (DEC) for its spill analysis. --------- 680 2 DEIS app'x I at 3. 681 2 DEIS app'x I at 4.	Spill projections were created using the most recent data on the North Slope from the Alaska Department of Environmental Conservation. Older documents were used as a comparison to see if spill rates had changed over time, or if spills data was missing from ADEC records.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	103	Solid and Hazardous Waste	There have been several blowouts - also known as uncontrolled releases from wells - in recent years on the North Slope. BP had two blowouts from existing production wells in April 2017 and December 2018, and Repsol had a blowout in February 2012 from an exploration well. All of these blowouts had some oil released and posed worker safety hazards. Appendix I only mentions blowouts as a source for oil spills but does not discuss them in detail. Given these three recent onshore incidents on the North Slope, the risk of a blowout with full-scale development in the NPR-A should be analyzed. Working with the Alaska Oil and Gas Conservation Commission, BLM should reassess this risk in revising the EIS. There are also substantial, increased risks of future blowouts as a result of climate change melting permafrost that have not been adequately considered in the DEIS.686 ------- 686 Elizabeth Harball, BP Likely to Plug Thirteen At-Risk Wells After April Accident, Alaska Public Media, Oct. 26, 2017, https://www.alaskapublic.org/2017/10/26/bp-likely-to-plugthirteen-at-risk-wells-after-april-accident	Oils spills resulting from blowouts were counted in the spills projections. Blowouts occurred due to a design flaw on some older wells; all other wells of the same design were plugged as a precautionary measure.
Lubetkin	Susan	–	27324	79	Solid and Hazardous Waste	Table 4. Calculating BBO to be produced in each Alternative using expected numbers and rates of large crude oil spills.	The Final IAP/EIS has been updated to clarify production.

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Lubetkin	Susan	_	27324	82	Solid and Hazardous Waste	Table 10. Calculations for the number of gallons of water needed under the Low, Medium, and High scenarios for Alternative D	The Final IAP/EIS has been updated to clarify water requirements.
Lubetkin	Susan	_	27324	93	Solid and Hazardous Waste	These spills occurred between 1995 and 2003, during which time 156 billion gallons (3.71 billion barrels) of oil were produced (Vol. 1, p. 381). Using the BLM (2018b) definition of large spills, there were (0 + 2 + 10) = 12 spills of more than 1000 gallons during that time. We can then find that the average rate of large spills was 12 large spills/3.71 BBbl oil produced = 3.23 large spills of crude oil per BBbl oil produced.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Lubetkin	Susan	–	27324	96	Solid and Hazardous Waste	According to the U.S. Energy Information Administration (EIA), in 2016 the United States consumed a total of 7.21 billion barrels of petroleum products (a value which includes biofuels). The proposed project has an estimated volume of 2.03 to 3.92 billion barrels to be extracted over the 22-65 years (Appendix B, p. B-1). If the US oil consumption stays constant, the country will use 7.21 Bbbl/yr x 22yr = 158.62 billion barrels of oil. Thus, this proposed project represents at most 2.5% of that usage and would come with decades, perhaps more than a century, of environmental harm in some of the most remote wilderness on the planet. As I demonstrate in the attached document, those environmental harms include an estimated 8-16 spills of >1,000 gallons of crude oil that may be expected among more than 2,900 to 5,600 spills of other solid and hazardous wastes. The risks of developing this resource are poorly estimated and not described in a way that is useful to the reader. Impacts of spills depend on their size, frequency, location, seasonal timing, availability of remediation structure, and other factors. Even if the potential spill numbers and volumes were correctly assessed in this DEIS, the potential impact on the environment from a host of issues, not just large crude oil spills, is far too great to justify moving the project forward.	Impacts on the environment from issues other than just crude oil spills are discussed throughout the IAP/EIS.

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Lubetkin	Susan	–	27324	99	Solid and Hazardous Waste	Appendix I of the NPR-A DEIS cites several previous documents, many of which “tier from” or “incorporate by reference” even earlier BLM and other documents, specifically: BLM 2012. National Petroleum Reserve-Alaska (NPR-A) Final Integrated Activity Plan/Environmental Impact Statement. In cooperation with the North Slope Borough, US Bureau of Ocean Energy Management, and US Fish and Wildlife Service. Anchorage, Alaska: US Department of Interior, Bureau of Land Management. ADEC 2007. Summary of Oil and Hazardous Substance Spills by Subarea (July 1, 1995-June 30, 2005). Prepared by ADEC Division of Spill Prevention and Response, October 2007. BLM 2004. Alpine Satellite Development Plan Final Environmental Impact Statement, Section 4. Environmental Consequences. Mach et al. 2000 (aka Hart Crowser 2000). Estimation of Oil Spill Risk from Alaska North Slope, Trans-Alaska Pipeline, and Arctic Canada Oil Spill Data Sets. OCS Study MMS 2000-007. Because these documents are implicitly used in the NPR-A DEIS risk assessment, I have also included my summaries and critiques of them in this comment (Section 9). The following list of spill risk estimates per BBO (Table 1) are a merely a compilation of those previously cited for comparison purposes, and not an endorsement of them for use in the current DEIS for the NPR-A. There are many different	Information was reviewed and included as appropriate in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	99 *(cont.)*	*(see above)*	substances, volumes, and time frames represented in Table 1. For ease of comparison, I have extracted the rates that are for various definitions of large spills of crude oil, sorted by volume (Table 2) and for all spills (Table 3). The spill rate calculations for finding rates using ADEC (data from 1995-2018) are in Section 6. Spill risk rates vary by substance spilled, volume spilled, and by the time frame over which the data were collected. The most recent data used in the rates shown in Table 1 ends in 2010. For a meaningful estimate of the risks for NPR-A, BLM should use the most current data available. Written reports (Alaska North Slope Spills Analysis from November 2010 and updated in March 2013; please incorporate this into the EIS analysis) and an online database of spills are available at https://dec.alaska.gov/spar/ppr/response-resources/publications-conferences/nssa-reports/and https://dec.alaska.gov/Applications/SPAR/PublicMVC/PERP/SpillSearch respectively. Therefore, there is no reason for the BLM to rely on previously cited and outdated spill risk rates. Instead, BLM should redo its spill risk rate analysis using the Alaska Departments of Environmental Conservation's spill database with available present day spill information. Note about Tables 2 and 3: ADEC (2007) said it was 1995-2003 but included	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	99 *(cont.)*	*(see above)*	some data prior to 1995, which I removed when calculating rates. I have shown the resultant spill rates in two forms to account for the fact that the full list of spills shown on pp. 55-58 of ADEC (2007) includes some spills that fall outside the production window specified. (It is important that the spill count and spill volume data and the production/transportation volume data cover the same time period to get accurate rate estimates.	*(see above)*
Lubetkin	Susan	–	27324	101	Solid and Hazardous Waste	BLM's analysis of the impacts of an oil and gas program on the exceptional resources of the NPR-A is inadequate. BLM's analyses suffer time and again from a lack of baseline information that the agency has not taken the time and steps to obtain. The result is an impacts analysis that over and over understates, misstates, or entirely fails to accurately or adequately describe the impacts of an oil and gas program. I concentrate these comments on the acres of land, gallons of water, and cubic yards of gravel required for infrastructure and timelines of the four Alternatives and the expected numbers and volumes of spills of oil and other hazardous substances. The DEIS is internally inconsistent, relies on spill rates from data that are not current, and does not show all the expected hazardous material spills.	Appendix I references the most current data and reports that were published in 2010 and 2013 North Slope Spill Analysis by Nuka Research and created for ADEC. The geographic scope of this analysis was contained within the North Slope Region, as defined in 18 AAC 75.495(a)(9), and limited to oil production infrastructure. It included all spills up to the first valve outside of pump station 1, the official beginning of the Trans-Alaska Pipeline. At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific locations. The impact analysis is based on the projections in the hypothetical development scenario. See Appendix B for more details.

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Lubetkin	Susan	_	27324	53	Solid and Hazardous Waste	Table 23. Expected numbers of spills for Alternative D using the spill rates in Table x and an estimated production volume of 3.92 BBO.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.
Lubetkin	Susan	_	27324	86	Solid and Hazardous Waste	I have suggestions for BLM to improve the spill risk estimates and their presentation and analysis that should be implemented before any real consideration of the potential risks of moving forward with drilling on the Coastal Plain can begin. 1. Explicitly define spill size classes and note when and how they differ from spill size class definitions in other documents. Make sure that all rates are converted to the same units. The shape of the distribution of oil spills is not well illustrated by merely grouping spills into small and large with a cut-off point of 500 barrels. The five categories based on order of magnitude increments in gallons all ow for a far more meaningful understanding of the numbers and risks of potential spills. 2. Use up-to-date spill records and long-term data sets to estimate spill risk rates. When stating previous risk rates, mean and median spill volumes, and other quantities, be explicit about where they are being cited from or how they were calculated. Be explicit about how those data are specified. Use an oil produced/transported volume from the same time period. Given that the oil production estimate and risk rates are likely to be ranges, the estimated numbers of spills that would occur will also be	The Final IAP/EIS has been updated for clarifying the spill report.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	ranges, and should be presented as such, with mean values and variances stated. 3. Consider that spill count might be best modeled by a Poisson variable, but spill volume for individual spills and as a total over time might best be modeled by some other distribution (log normal, (negative) exponential, etc.). Those are separate questions and should be handled as such. 4. If the spill count data follows a Poisson distribution (following assessment using goodness-off it), a much more sophisticated analysis of the Poisson parameter can be done using generalized linear models, which allow . (or ., depending on the notation being used) to be modeled based on a linear combination of independent variables. See Julian J. Faraway's Extending the Linear Model with R: Generalized Linear, Mixed Effects and Nonparametric Regression Models (Chapman and Hall, published in 2006), Chapter 3. It is tempting to believe that there are trends with time that may show a decrease in spill frequency or spill volume, but showing either of those is not statistically straightforward. If the spill frequencies follow a Poisson distribution, it would be likely that many years would have relatively few spills, but that the long-term history would show a handful of years with what look like anomalously high spill counts. If the window of statistical modeling catches one of those spill count	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	86 *(cont.)*	*(see above)*	spikes at the end (in the most recent data), it could lead to the conclusion that spill rates were increasing. Conversely, if the spill count spike occurred early in the time frame, it might be easy to erroneously conclude that spill rate is decreasing. Considering a longer time frame and multiple other factors that could affect spill frequency will allow for a more robust statistical assessment of any trends over time. Unless BLM can justify why using only smaller data set is statistically preferable, it should use all available data to evaluate the spill risk and impacts.	*(see above)*
Lubetkin	Susan	–	27324	88	Solid and Hazardous Waste	Crude Oil "Mach et al. (2000) estimated the rate of oil spills (including crude oil spills) to range from 0.0053 +/-.24 percent spills per 42,000,000 gallons of crude oil produced for a spill of less than 4,200 gallons (a large spill as defined in this EIS) to 0.000078 +/-200 percent spills per 42,000,000 gallons of crude oil produced (a very large spill as defined in this EIS). They did not provide spill rate estimates for very small to medium spills" (Vol. 1, p. 380). Table 30. More detail is provided about the frequency of different crude oil spill sizes (Vol. 1, p. 381 and footnote on p. 382):	Information was reviewed and included, as appropriate, in the Final IAP/EIS.
Lubetkin	Susan	–	27324	105	Solid and Hazardous Waste	Table 5. Calculating BBO to be produced in each Alternative using expected numbers and stated rates of small crude oil spills.	The Final IAP/EIS has been updated to clarify production.

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Lubetkin	Susan	_	27324	107	Solid and Hazardous Waste	Table 6. Calculating BBO to be produced in each Alternative using expected numbers and stated rates of small refined oil spills.	The Final IAP/EIS has been updated to clarify production.
Lubetkin	Susan	_	27324	110	Solid and Hazardous Waste	Table 8. Trying to confirm the calculations for the number of yd3 of gravel needed under the Low, Medium, and High scenarios for Alternative D.	The Final IAP/EIS has been updated to explain gravel calculations.
Lubetkin	Susan	_	27324	126	Solid and Hazardous Waste	Table 22. Expected numbers of spills for Alternative C using the spill rates in Table x and an estimated production volume of 2.85 BBO.	The Final IAP/EIS has been updated to clarify production.
Lubetkin	Susan	_	27324	129	Solid and Hazardous Waste	Table 25. Comparing stated values of petroleum resources that could be spilled over the life of production from Appendix I and Chapter 3.	The Final IAP/EIS has been updated to clarify production.
Lubetkin	Susan	_	27324	133	Solid and Hazardous Waste	6. The consequences of a single spill of a certain size alone are important to predict and analyze the impacts of, but the cumulative case for the whole project and with other environmental stressors will form a more complete picture of the impacts. This should also be explicitly and quantitatively addressed in the DEIS. This information is necessary for the agencies and public to understand the risks and also to evaluate the impacts, including cumulative impacts, and BLM should provide it.	The Final IAP/EIS has been updated to include cumulative spill totals. Most spill impacts are localized to the spill location and the surrounding area.

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Lubetkin	Susan	–	27324	89	Solid and Hazardous Waste	Mach, Jeffery L., Robert L. Sandefur, and Jean H. Lee. 2000. Estimation of Oil Spill Risk from Alaska North Slope, Trans-Alaska Pipeline, and Arctic Canada Oil Spill Data Sets. OCS Study MMS 2000-007. Also on p. 3-64 (BLM 2018), the DEIS mischaracterizes the findings of Mach et al. (2000). In the second full paragraph, the first sentence incorrectly summarizes Mach et al. (2000), stating "The potential occurrence of spills does not depend on any alternative chosen, as spills are not a planned activity and are unpredictable in cause, location, size, time, duration, and material type (Mach et al. 2000)."Instead, Mach et al. (2000) state that "A statistical analysis of individual spill volumes by study area, facility type, oil type, affected media, and spill cause combined did not indicate any particularly interesting correlation…[S]pill rate is the best variable to use in predicting the volume of further oil spills and that a rate of approximately 52 gallons of oil spilled per million barrels of crude oil produced will be the average, if trends that started in 1980 continue" (Mach et al. 2000). Further, Mach et al. (2000) give spill size class specific estimates of the risk of oil spills: 0.0053 spills/MMBbl, .24 percent, for spills of 100 barrels and greater; 0.00093 spills/MMBbl, .58 percent, for spills of 500 barrels and greater; 0.00039 spills/MMBbl, .89 percent, for spills of 1,000 barrels and greater; and 0.000078	The Final IAP/EIS has been updated.

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(see above)	*(see above)*	*(see above)*	*(see above)*	89 *(cont.)*	*(see above)*	spills/MMBbl, .200 percent, for spills of 10,000 barrels and greater. using data from Alaska alone (n = 68 spills larger than 100 barrels over a period in which 12,854 MMBbl crude oil was produced). If data from Canada are included, the rates are higher because there were 81 spills of 100 barrels or more during the production of 13,019 MMBbl of crude oil: 0.0062 spills/MMBbl, .22 percent, for spills of 100 barrels and greater; 0.00123 spills/MMBbl, .50 percent, for spills of 500 barrels and greater; 0.00054 spills/MMBbl, .76 percent, for spills of 1,000 barrels and greater; and 0.000077 spills/MMBbl, .200 percent, for spills of 10,000 barrels and greater	*(see above)*

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Lubetkin	Susan	_	27324	98	Solid and Hazardous Waste	The BLM's risk estimate for oil and other hazardous materials spills is based on a simple equation Expected number = Estimated spill risk rate x Expected BBO of spills per BBO produced The estimated spill risk rate varies by spill volume, substance spilled, location, data collection time frame, and other factors, but is often calculated as a simple count of the previous number of such spills divided by the oil production during that time: Estimated spill risk rate = Number of spills in a given timeframe per BBO produced BBO produced in the timeframe As I will show in Sections 3 and 4, neither the current spill risk per BBO produced nor the BBO to be produced is definitively stated in this DEIS, but a range of data and values are cited in the supporting documents or can be calculated from other information within this DEIS. This lack of explicit statement of a current value or a range is true for the expected risks of spills of crude oil, refined oil, produced water, seawater, other hazardous materials and gas blowouts.	This is a traditional knowledge statement gathered during the March 15 and 16, 2012, traditional knowledge workshops in City of Nuiqsut related to the Alaska Pipeline Project. The citation is SRB&A Unpublished-b, which is already provided in Appendix Y.

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Lubetkin	Susan	_	27324	104	Solid and Hazardous Waste	4. List of potential oil production It's hard to get a sense of how much oil is predicted to be produced from the DEIS. Within Appendix B (Reasonably Foreseeable Development Scenario for the NRP-A IAP EIS) and other places, production values are given in hoped for peak production of oil in barrels per day. While there are mentions of reserve volumes, those do not address the fundamental question of how much oil could be produced in each scenario or offer any measure of uncertainty around them. Nonetheless, I was able to compute mean estimated production values for each scenario based on expected numbers of spills and spill rates per BBO. For example, since Expected number = Estimated spill risk rate x Expected BBO of spills per BBO produced we can rearrange that equation to solve for Expected BBO = Expected number of spills produced Estimated risk rate per BBO produced In Appendix I, there are two places to calculate BBO, which can serve as a way to confirm the expected production estimates. First, consider the estimated rate of large spills of crude oil per BBO, which is given as 0.65 spills/BBO. This value matches one from BLM (2012). If that is the case, then Alternatives A-D could produce 2.03 to 3.92 BBO (Table 4).	The BLM estimates that the maximum amount of oil produced in the NPR-A in the next 20 years would be 500,000 barrels of oil per day and would decline at a rate of 8% per year thereafter. See Appendix B, high development scenario.

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Lubetkin	Susan	–	27324	118	Solid and Hazardous Waste	Table 16. Number of crude oil spills per size class and oil production (in BBO) per year in the North Slope, Alaska, based on ADEC and tax records from 1995 to 2018.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.
Lubetkin	Susan	–	27324	122	Solid and Hazardous Waste	NPR-A DEIS Chapter 3, p. 78 contains this passage: Appendix I includes spill projections for the NPR-A from the hypothetical development scenarios (Table I-1 in Appendix I) and provides analysis on the fate and behavior of spilled oil on tundra and water. The rate of potential oil, saltwater, and hazardous substance spills from the hypothetical development scenario (Appendix B, Section B.8) is likely to be lower than the history of the past 30 years of oil exploration, development, production, and transportation on the North Slope. The combination of federal and state regulations, continually improving industry operating practices, and advancements in best available control technology reduce the probability and size of future spills (BLM 2004, Section 4.3.1). While the estimated spill rates for crude oil may have decreased from the values in the 1980s, the data from 1995 to the present show that nearly all spill rates per BBO produced have increased. The BLM statement about a decline in crude oil spill frequency may have made sense in 2004 but does not bear up to scrutiny today.	The Final IAP/EIS has been updated with more recent data to reflect a decline in crude oil spill frequency.

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Lubetkin	Susan	–	27324	128	Solid and Hazardous Waste	6c. Calculations of volumes that could be spilled. Appendix I erroneously states that the average volume for a small crude oil spill is 0.8 barrels, possibly mis-citing BLM (2012), which gives that the mean volume of a small crude oil spill as 2.8 barrels and the mean volume of a small refined oil spill as 0.8 barrels. According to BLM (2012), the mean size of a large (>500 bbl) oil spill from a facility was 1,229 barrels and the mean size of a large spill from TAPS was 5,141 barrels. BLM used an estimate of 2,623 barrels for the average large spill size in the NRP-A DEIS but does not show where that value came from. The values given for volume of oil that could be spilled in each Alternative are not consistent between Chapter 3 and Appendix I (Table 25), nor do they match the volumes I calculate using the average sizes and spill rates from BLM (2012) for a combination of crude and refined oil products (Tables 26 and 27).	The Final IAP/EIS has been updated with the average volume for a small crude oil spill. Differences between Chapter 3 and Appendix I (Table 25) have additionally been corrected.
Lubetkin	Susan	–	27324	134	Solid and Hazardous Waste	7. Also, some sort of alignment between spill size class definition and environmental consequence would be helpful. (See Section 1. These may differ between substances spilled.) While the largest spills (>21,000 gallons) are very rare, the consequences of spills that don't fall in that size class can also be biologically important, especially when several such events may occur.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.

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Lubetkin	Susan	–	27324	108	Solid and Hazardous Waste	Appendix B also gave estimates for the infrastructure for low, medium, and high theoretical development scenarios, the number of acres those would disturb, and the amount of gravel required. I checked the math and found that while I was able to recreate the total number of acres disturbed and cubic yards of gravel required for the medium and high cases, the numbers for the low case didn't work (Tables 7 and 8). My values for acres disturbed and cubic yards of gravel were lower than those presented in the DEIS. If the values in Table B-2 are correct, the infrastructure needs must have been underreported.	There was a mistake made in the calculation of the low case hypothetical scenario. Thank you for bringing it to the BLM's attention. The Final IAP/EIS has been updated.
Lubetkin	Susan	–	27324	117	Solid and Hazardous Waste	Tables 13, 14, and 15 do not count the 83 spills listed by weight (in pounds) from 1995-July 31, 2003, the 109 spills listed by weight from 1995-2010, or the 149 spills listed by weight from 1995-2018. I used an estimated amount of oil produced in each time period of 3.91 BBO from 1995-July 31, 2003 (BLM 2004) and used tax records to calculate that 5.498 BBO were produced from 19952010 and 6.9316 BBO from 1995-2018 (Table 16). Based on the numbers of spills in each size and substance class and the amount of oil produced, I calculated estimates of spill rate per BBO for each size and substance class for the three time periods (Tables 17-19).	The Final IAP/EIS calculations have been updated to include these spills.

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Lubetkin	Susan	–	27324	127	Solid and Hazardous Waste	It is important to note that these spill rates do not include quantitative estimates of the number of spills that could be caused by gas blowouts (shown next) or the risk of transporting oil by sea from Atigarn Point, Smith Bay, or Utqiagvik to Dutch Harbor, as shown in Map B-2. Appendix I lists rates of gas blowouts, citing OGP (2010). Based on those values and some estimates of the infrastructure required under the low, medium, and high scenarios, some very rough estimates of minimum expected numbers of blowouts can be made (Table 24).	No produced oil is planned to be transported by sea; Map B-2 shows the travel of vessels used to transport equipment to the NPR-A.
Lubetkin	Susan	–	27324	131	Solid and Hazardous Waste	Note 1: None of these are “good” answers to what the expected number of spills will be. Tables 20-23 merely serve as examples of the method BLM could use to come up with the simplest estimate of the number of spills that would occur on the NPR-A if this project were to go forward. Note 2. There are computational hazards in using short term spill records, especially for estimating the rates of (very) large spills. The ADEC (2007) rate of 0 spills >1,000 barrels of crude oil should not be treated as a real estimate. (See Section 6a.) Note 3. These calculations are only one piece of any cumulative effects analysis. They do not include spills that have already occurred in the area (see Section 1) or any other drilling or other projects that have negative environmental impacts happening in the same geographic region.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.

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Lubetkin	Susan	_	27324	132	Solid and Hazardous Waste	5. Do not focus only on large crude oil spills as the driver of all spill related environmental impacts such that spills of other sizes and substances do not receive careful attention, particularly when multiple spills are expected. All spills should be considered and analyzed. As shown in Table 19 for the general case in the North Slope and Tables 20-23 for the four Alternatives for the NPR-A, crude oil only accounts for ~11% of all spills >1,000 gallons. Similarly, crude oil spills represent only about 9% of the total number of spills on the North Slope. The EIS should explicitly calculate the numbers and volumes of the other kinds of spills of all sizes that would be expected and discuss their impacts.	Information was reviewed and included, as appropriate, in the Final IAP/EIS.
Lubetkin	Susan	_	27324	81	Solid and Hazardous Waste	These newly calculated infrastructure values can also be used to set up estimating equations for how much water will be used (Table 10). Because the estimates of the amount of water required for constructing satellites pads varies by more than an order of magnitude, the number of exploration drilling pads is unknown, the production per day will vary, and the time any well will operate is unknown, Table 10 can only give a rough structure to estimating water use	The Final IAP/EIS has been updated to clarify water estimates.
Lubetkin	Susan	_	27324	83	Solid and Hazardous Waste	Table 24. Calculations for potential gas blowouts. These are minimum values because they do not include the risks from exploration wells.	Appendix I shows blowout rates for both exploration wells and development/production wells.

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Lubetkin	Susan	–	27324	102	Solid and Hazardous Waste	Appendix I of the NPR-A DEIS incorporates seven documents by reference: Chukchi Sea Sale 193 SEIS (BOEM 2011) Northeast National Petroleum Reserve-Alaska Final Supplemental IAP/EIS (BLM 2008) Northeast National Petroleum Reserve-Alaska Final Amended IAP/EIS (BLM 2005) Northwest National Petroleum Reserve-Alaska Final IAP/EIS (BLM and MMS 2003) Northeast National Petroleum Reserve-Alaska Final IAP/EIS (BLM and MMS 1998) Alpine Satellite Development Plan EIS (BLM 2004) National Petroleum Reserve-Alaska Final IAP/EIS (BLM 2012) In some DEISs spill classes are defined in gallons (ex. BLM 2004): * Very small spills, less than 10 gallons * Small spills, 10 to 99.5 gallons * Medium spills, 100 to 999.5 gallons * Large spills, 1,000 to 100,000 gallons * Very large spills, greater than 100,000 gallons In others (BLM 2004 Volume 2, Appendix 9; BLM 2012 Volumes 4 and 6) they are defined in barrels, where one barrel contains 42 gallons. Risk rates are not comparable unless the definitions match for both quantity and unit. This means that risk rates cited for different spill classes in different DEISs will have to be recalculated for spills falling in the same category names, as a >1000 gallon spill does not have the same risk rate as a >1000 barrel spill, even though both might defined as large in their respective DEIS spill size	Information was reviewed and included, as appropriate, in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	102 *(cont.)*	*(see above)*	categorizations. The NPR-A DEIS uses 500 barrels as the demarcation for small and large spill sizes. 500 gallons is 21,000 gallons, so the smallest large spill (as defined in the NPR-A DEIS) is 21 times larger than it would need to be to large under the other definition. Also, grouping the spills only into small and large is a very coarse categorization and may not be appropriate for all hazardous materials that can potentially be spilled. In the calculations I show in this comment, I give the numbers of spills using the size categories in gallons and in barrels. Even for the more finely broken down spill classes given in gallons, spill classes go up in order of magnitude (or more) increments. This is about making the math and statistics work, rather than any biological rationale provided by BLM. Not all large spills are created equal in terms of biological impacts. Impacts of spills depend on size, frequency, location, seasonal timing, availability of remediation infrastructure, and other factors. Specifically, the characterization of the impacts of a large spill will vary widely depending on the assumed volume from a range of 1,000 to 100,000 gallons, even if all other factors are the same. Taking the continuous variable volume and characterizing it in discrete size categories may be a mathematical necessity, but it makes characterizing the effects of different spill sizes - even if all the	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	102 *(cont.)*	*(see above)*	other factors were to match - very difficult. Spills of 1,000 gallons, 10,000 gallons, and 50,000 gallons will not have the same impacts, even if they all qualify as large spills, and modeling the impacts of an average large spill is meaningless in a category that has such a broad volume range. Similarly, the effects of 4.5, 45, or 450 barrel spills (189, or 1,890, or 18,900 gallons, respectively) will be vastly different, even if they are small by definition in this DEIS. Furthermore, the frequency of the spills in different size classes varies dramatically, so even if the impacts of a single small spill may not appear to be significant alone, it is worthwhile to consider how many such spills might occur and their aggregated and cumulative effects over time and space.	*(see above)*
Lubetkin	Susan	_	27324	103	Solid and Hazardous Waste	There are several things to notice from Tables 1-3. 1.Estimated spill rates decrease as spill volume increases. 2. There is general agreement about the risk of crude oil spills >1,000 gallons per BBO produced, at least over the time frames for which data were analyzed. In rough terms, 3 or 4 large spills of crude oil would be expected for every BBO produced (Table 2). 3. While it is easy to focus our concern on large crude oil spills, they are only a small fraction of the total number of large spills that may occur. Based on Tables 2 and 3, crude oil spills may only represent approximately 10% of the total number of spills >1,000 gallons. 4. The spill rate	Information was reviewed and included, as appropriate, in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	103 *(cont.)*	*(see above)*	estimates vary over time, but there are insufficient data to state that spill frequency or volume has significantly decreased based on the rates shown here, especially since no other factors have been incorporated into any statistical analysis. I have shown the method in two forms to account for the fact that the full list of spills shown on pp. 55-58 of ADEC (2007) includes some spills that fall outside the production window specified. (It is important that the spill count and spill volume data and the production/transportation volume data cover the same time period to get accurate rate estimates.) Note: The larger the sample (in this case the time frame), the better the statistical analysis will be. Therefore, the analysis should be expanded to include spills and annual production/transportation volumes prior to 1995 and after 2010. This is especially true for estimating the rates of occurrence of relatively rare events, such as spills >500 barrels (>21,000 gallons). By definition, rare events don't happen very often, which means a long sampling period is necessary to accurately assess their frequency. Thus, a 15-year time frame may be inadequate to measure the frequency of crude oil spills larger than 500 barrels. In other words, the estimated spill risk rate of 0 spills of >1000 barrels (>42,000 gallons) of crude oil per BBO produced shown in Table 2 may be an artifact of an	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	103 *(cont.)*	*(see above)*	insufficiently large data set being used to address the question and not an accurate risk rate estimate. (See also Section 7 for reasons to look at long term spill histories.) For example, consider this assessment and prediction from BLM (2004): "Spills are not a planned activity for any alternative. Spills are generally unpredictable in cause, location, time, size, duration and/or material type (Mach et al. 2000)" (Vol. 1, p. 369). "[B]ased on the empirical evidence of the North Slope oil companies as well as the experience of oil field operations in the contiguous United States, … the probability of a very large spill over 100,000 gallons [2,380 barrels] is low" (Vol. 1, p. 371). And then there was a spill of 212,252 gallons (5,053 barrels) in Prudhoe Bay in 2006. Both Mach et al. (2000) and BLM (2004) considered roughly 20 years of spill history and yet the BLM underestimated the risk of a very large spill, showing that the probabilities of such rare events require a long time history to be estimated with any accuracy.	*(see above)*

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Lubetkin	Susan	–	27324	135	Solid and Hazardous Waste	8. Discussion of why such analyses are important for other parts of the DEIS Tables 13-15 and 17-19 illustrate how critical it is to be explicit about the data used and how spill sizes are defined. The ADEC database has up to date spill data available and there are also readily available estimates of the amount of oil produced on the North Slope of Alaska. Therefore, updated spill risk rates for crude oil, refined petroleum products, seawater and produced water, and other hazardous materials should be straightforward to calculate, as I've shown here. BLM should obtain the most updated information and use it in the DEIS to inform its spill analysis. It is not just spill size but also spill substance and frequency that will have an impact on the environment and organisms that live there. Direct and indirect impacts of spills, including context, duration, and intensity, can't be estimated by considering individual spills alone. As stated in CEQ regulations (40 CFR 1508.7 and 1508.25[a][2]) and quoted on p. F-4 of Volume 2 of the Coastal Plain DEIS), a cumulative impact is “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but	Information was reviewed and included, as appropriate, in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	135 *(cont.)*	*(see above)*	collectively significant actions taking place over a period of time." As noted in the Coastal Plain DEIS (BLM 2018) "The purpose of the cumulative impacts analysis is to determine if the impacts of the actions considered in this EIS, together with other past, present, and reasonably foreseeable future actions, could interact or accumulate over time and space, either through repetition or combined with other impacts, and under what circumstances and to what degree they might accumulate" (Vol. 2, p. F-4). Cumulative impacts can include additive and synergistic interactions (Vol. 2, p. F-5). Pollutant loads from multiple spills of hazardous materials could easily have additive or synergistic effects. When estimates of more than 80-140 spills of >1,000 gallons are possible from this project alone (Tables 20-23), consideration of cumulative impacts are non-trivial.	*(see above)*

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Lubetkin	Susan	–	27324	138	Solid and Hazardous Waste	I also calculated the expected time for the NPR-A production scenario to take (Table 11). For that, I used the peak production per day and the expected BBO over the course of the project for all four Alternatives and found that all four resulted in the same timeframes. Appendix B states that "[p]roduction activities continue year-round for 10 to 50 years." My calculations are nearly double that. Furthermore, the estimates in Table 11 are based on peak production rates and should therefore underestimate the number of years required.	Estimates in the document take into account the fact that different developments will not all begin producing at the same time.

Z.3.41 Special Areas

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Cole	Julie	Fairbanks	27299	2	Special Areas	And the other thing was on the -- you said you reduced the Teshekpuk Lake area because of the caribou calving area had changed. And I was just curious what time frame that change and the boundary was based on. I mean, is it the calving over the last ten years or the last five years or what?	The Teshekpuk Lake Special Area was created to protect important migratory bird habitat and the calving grounds of the Teshekpuk Caribou Herd. The boundary was adjusted in the action alternatives to incorporate the most recent information (including telemetry data through 2019) about the distribution of these resources. The southern boundary was moved north because protections for yellow-billed loons outlined in ROP E-11 apply across the entire Reserve, so no unique management prescriptions are needed in the Special Area. Satellite radio collar data was available for 1990–2019, and some additional information on calving distribution (VHF collars and aerial survey data) is available, prior to 1990.

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McGuire	Rebecca	Alaska Shorebird Group	27169	18	Special Areas	Although these Special Areas will remain closed to leasing under all alternatives, the draft EIS states directly that "sand and gravel mining would be authorized on a case-by-case basis" and that "new infrastructure may be allowed to support offshore oil and gas development or community needs."64 Such qualifying remarks essentially nullify the designation of these areas as Special Areas, and thus deceives the public into thinking these areas are protected when in fact it is easy to construct sand and gravel mines and other oil and gas infrastructure. 64 NPR-A DIAP/EIS, p. 2-4.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.
McGuire	Rebecca	Alaska Shorebird Group	27169	17	Special Areas	Alternatives B-D move the southern boundary of the TLSA to the north (compare maps 2-18 and 2-19 in Volume II) "because protections for Yellow-billed Loons outlined in ROP E-11 apply across the entire Reserve, so no unique management prescriptions for Yellow-billed Loons (Gavia adamsii) apply in the Teshekpuk Lake Special Area."62 This explanation fails to recognize that the southern area is important to other wildlife resources such as ducks, geese, swans, and shorebirds. In fact, the purpose of the Teshekpuk Lake Special Area was expanded in 2013 to include the protection of shorebird habitat while continuing to protect waterbird habitat.63 62 NPR-A DIAP/EIS, p. 2-4. 63 2013 NPR-A IAP Record of Decision, chapter 1, p. 4.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	3	Special Areas	Our organizations seek effective protections for the nationally and internationally recognized wildlife and wildlife habitats, wild rivers, subsistence, cultural resources, and wilderness lands and values found in the Reserve. This area supports and sustains vital subsistence harvests for more than 40 communities on the North Slope and in Northwest Alaska. The most biologically-rich and recognized wildlife and wilderness values of the Arctic are not reliably, effectively, or permanently protected at this time, and these values should not be compromised. The IAP must provide necessary protections for the Special Areas, resources, and values of the Reserve, taking account of rapid climate change in the region and the need to transition away from fossil fuel development to avoid further exacerbating climate disruption.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
Donahey	Leah	Alaska Wilderness League	29320	130	Special Areas	Given that this section of the TLSA is a prime area for nesting Yellow billed Loons, the DEIS should have analyzed the increased impacts leasing and development would have on these loons in this area.	The Teshekpuk Lake Special Area was created to protect important migratory bird habitat and the calving grounds of the Teshekpuk Caribou Herd. Designation as a special area does not provide any special protection. Protections for yellow-billed loons outlined in ROP E-11 apply across the entire Reserve, so no unique management prescriptions are needed in the Special Area; the adjustment of the special area boundary has no effect on protections for yellow-billed loons.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Lowenthal	Alan	Congress of the United States	27860	1	Special Areas	If any change is to be made to the existing IAP, BLM should increase protections for designated Special Areas, not reduce them further or open them to oil and gas. Not only are designated Special Areas intended to be managed for their unique ecological value, but when Congress authorized oil and gas leasing in the Reserve, it was mandated that activities ensure "maximum protection" of areas that have "significant subsistence, recreational, fish, and wildlife, or historical or scenic value."	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. The NPRPA requires maximum protection of important surface resources, consistent with oil and gas exploration.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	16	Special Areas	The current restrictions against surface occupancy therefore can't be lifted yet. These areas must remain off limits-as they have been for decades-until there is ample evidence showing that the highest level of surface protection is no longer necessary. Furthermore. if BLM insists on approving a pipeline corridor near Teshekpuk. Kuukpik would probably no longer support relaxing restrictions in the southern TLSA because these lands may become more important if caribou are forced to relocate away from the pipeline.	Pipeline corridors under all action alternatives are necessary to provide access to state and federal offshore leases. Alternative A considers prohibiting pipelines in the core Teshekpuk Lake Special Area and could be adopted in the ROD. Any analysis that considers a pipeline route will consider mitigation measures to minimize impacts on wildlife.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
NAVARRETTE	Rikki	Kuukpik Corporation	29284	2	Special Areas	There is no new evidence showing that the impacts of developing critical calving and insect relief areas around Teshekpuk Lake would be any less than we, BLM, the North Slope Borough (NSB), and every other major stakeholder have believed for decades. It would therefore be arbitrary, capricious, and unjustifiable to allow significant development in the areas that BLM concluded just 7 years ago should be kept off limits.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.
NAVARRETTE	Rikki	Kuukpik Corporation	29284	5	Special Areas	BLM can't just implement the administration's goal of opening the Teshekpuk Lake area for oil development without relying on some scientific information that supports the change. BLM's analysis just 7 years ago concluded that areas near Teshekpuk Lake-in particular areas to the north and east-were too important to numerous subsistence and non subsistence resources to be threatened with leasing and development. If the facts that supported that conclusion haven't changed-or if BLM can't explain why the last IAP was wrong-it would be arbitrary and capricious to radically alter the management plan based on the same basic information that was available in 2012. BLM cannot simply change its mind about a management plan without some factual evidence supporting that change.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	62	Special Areas	The Draft EIS doesn't provide that kind of evidence. That's not surprising because conditions in NPR-A are not radically different from what was expected in 2012. Quite simply, when things haven't changed, it's pretty hard to show evidence that they have. And while a few new studies have been completed, none of them show radical shifts in behavior or dispel the decades of studies and traditional knowledge indicating that development in the Teshekpuk Lake area is simply too risky.4 4 One possible exception may be a few bird studies that are described as providing "substantial new information". But the "new" information isn't highlighted or distinguished in the analysis in a way that would allow readers to understand what has changed, if anything. 2019 NPR-A IAP DEIS, p. 3-124. Whether that's by design or simply a result of again attempting to limit the page count, we don't know.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schwarz	Kurt R.	Maryland Ornithological Society	27437	1	Special Areas	Teshekpuk Lake Special Area, with 3.6 million acres, represents a minor part of NPR-A, but it has very high wildlife values. It should be kept completely out of the oil and gas program - both leasing and construction of pipelines and other infrastructure. This habitat will become even more valuable for wildlife as the surrounding areas are developed for oil and gas, both within NPR-A and on other ownerships outside NPR-A. The North Slope of Alaska has been described as "America's Serengeti." Teshekpuk Lake with its surrounding wetlands complex is a very important part of this great wildlife region. Notable birds of Teshekpuk Lake include large populations of four species of geese and crucial nesting populations of Spectacled Eider, Yellow-billed Loon, Red-throated Loon, Long-tailed Duck, King Eider, and Buff-breasted Sandpiper. For these reasons it has been designated an Important Bird Area of global significance. 2 We do not believe the wildlife can survive if oil and gas activities are allowed in the area. 2 Audubon Alaska. 2017 Assessment of the Wildlife Values in the Teshekpuk Lake Wetlands Complex within the National Petroleum Reserve-Alaska (NPRA). http://ak.audubon.org/sites/default/files/special report on Teshekpuk lake wild life values 2017 dec2017 -final.pdf Colville River Special Area, with 2.4 million acres, (to be abolished under Alternatives B, e	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area. Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.

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(see above)	*(see above)*	*(see above)*	*(see above)*	1 *(cont.)*	*(see above)*	and D) is important for cliffs that serve as nesting habitat for rap tors, including Rough-legged Hawk, Arctic Peregrine Falcon, Golden Eagle, and Gyrfalcon. The cliffs are essential for these species because the surrounding tundra landscape is flat If oil and gas activities are allowed in this area, it could end their value as nesting habitat for these birds. The special area status should be continued, and strict protection should be provided against oil and gas leasing and against construction of pipelines and infrastructure. Utokok River Uplands Special Area, with 7 million acres, is essential habitat for the Western Arctic caribou herd of more than 230,000 caribou and is nesting habitat for the Arctic Peregrine Falcon and Golden Plover. The special area should continue to be protected against oil and gas leasing and against construction of pipelines and infrastructure.	*(see above)*

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Adams	Jim	National Parks Conservation Association	29262	12	Special Areas	No leasing, non-subsistence infrastructure, or activities associated with the development of coal or hard rock mining should be allowed within key caribou habitat. This should also include prohibiting infrastructure in support of those activities, such as a road to transport mined minerals to markets. As noted above, construction of a road in key caribou habitat would be disastrous. BLM has failed to address its previous findings regarding the importance of this area and the need to protect this habitat. Reducing protections would be contrary to BLM's obligation under the National Petroleum Reserves Production Act (NPRPA) to provide maximum protection for the values in this area. At a minimum, BLM should maintain the existing protections for the Utukok Uplands Special Area and we urge BLM to increase protections to limit leasing or infrastructure within the entire special area.	The NPRPA requires "maximum protection of important surface resources consistent with oil and gas exploration." This provision makes clear that oil and gas activities are allowed in Special Areas, albeit subject to maximum protection conditions.
Adams	Jim	National Parks Conservation Association	29262	4	Special Areas	Because of the impacts that oil exploration and development would have on these resources, BLM should refrain from taking any future actions that would undermine existing conservation measures in the Special Areas. Indeed, we believe science shows clearly that the protections in the Utukok River Uplands should be strengthened to close the entire special area to leasing and development.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Fisher	Kevin	North Slope Borough	29290	3	Special Areas	The Borough requests that this IAP defer leasing north of Teshekpuk Lake until the BLM conducts a further targeted planning process that determines what areas north of the Lake can be responsibly and sustainably developed and what special protections should apply. This process should include all of the relevant stakeholders and resource experts, with the most current scientific data available concerning waterfowl nesting, brooding and molting. The Borough should be included in this planning process.	The BLM has considered inclusion in the Preferred Alternative.
Fisher	Kevin	North Slope Borough	29290	18	Special Areas	BLM should always note in its maps and presentations that special area designations themselves provide no specific protections and only highlight areas of special ecological value and concern.	The maps have been updated in the Final IAP/EIS.
Fisher	Kevin	North Slope Borough	29290	1	Special Areas	the Borough requests BLM to keep Teshekpuk Lake unavailable for leasing. BLM should make areas south of Teshekpuk Lake available for leasing subject to a three mile no surface occupancy buffer and adequate protections to protect caribou habitat areas. Drill pads and major facilities other than roads and pipelines should not be permitted within the narrow corridors east and west of Teshekpuk Lake through which caribou access the important areas north of the Lake.	Alternative D was adjusted to include a 3-mile NSO buffer around the entirety of Teshekpuk Lake.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Little	Suzanne	The Pew Charitable Trusts	26136	11	Special Areas	Alternatives C and D would open 75% and 81% of the NPR-A to leasing, respectively, with both dramatically altering current management of the Teshekpuk Lake and Utukok River Uplands Special Areas. Alternative D would make the entire Teshekpuk Lake Special Area available for leasing. The NPRPA requires oil exploration in areas with “significant subsistence, recreational, fish and wildlife, or historical or scenic value” be conducted in a way that provides “maximum protection.” It specifically identifies the Teshekpuk Lake and Utukok River areas for this protection. Alternative D, in opening the entire Teshekpuk Lake Special Area for leasing, undermines the spirit and intent of NPRPA.	Secretarial Order 3352 directed the development of a schedule to “effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources.” The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.
Little	Suzanne	The Pew Charitable Trusts	26136	3	Special Areas	The special areas created in the 2013 IAP remain key habitats of critical importance for ecosystem health. We note that the Colville River Special Area is not included in any action alternatives in the Draft IAP. BLM is contemplating changes to management of this important landscape in the Draft IAP in many instances without support of the best available science and Traditional Knowledge. That unique Indigenous knowledge includes programmatic experience and understanding about ethno-history, demographics, land-use patterns, customary and traditional use areas, and intrinsic knowledge about the natural environment.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	13	Special Areas	It is gravely concerning that the southern portion of the Utukok River Uplands Special Area has little or no protection from development. BLM admits that Alternative C "allows development within areas used consistently by almost all of the Western Arctic Herd during spring migration and for large mid-summer movements through the Brooks Range" (p.3-174). This is very concerning. While the draft IAP/EIS states that oil and gas development is unlikely in this area, that does not justify removing protections in this area. This is all the more concerning because of the possibility of coal mining in this area (see below). If a road were built within the WACH calving area, especially one that cuts through the spring migration route and isolates the core calving area from the winter range, this could be devastating to the WACH and the communities and other users that rely upon it.	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. The BLM is including consideration of development in the Utukok River Uplands Special Area at the request of a cooperating agency. Hardrock mining is prohibited in the NPR-A.
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	1	Special Areas	The Teshekpuk Lake Special Area actually declines by 4.9% in Alternative B (p.3-171) and areas in the WACH calving and summer range that are unavailable for leasing under the existing IAP would be opened in Alternative B. The draft IAP/EIS points to the leasing deferral around Nuiqsut under Required Operating Procedure (ROP) K-16 as limiting impacts in an area used by both the Teshekpuk Caribou Herd and Central Arctic Herd (p.3-172). However, the lease deferral, while admirable in principle, is likely to	The Final IAP/EIS has been updated to included portions of the lease deferral area that have already been leased. The amount of preferred calving habitat in different land statuses under each alternative is provided in the Final IAP/EIS (Appendix T); the amount of the calving area that is closed to leasing and closed to new infrastructure increases from Alternative A to Alternative B. The potential for community infrastructure under Alternatives B–E is discussed in the section on impacts under all action alternatives.

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(see above)	*(see above)*	*(see above)*	*(see above)*	1 *(cont.)*	*(see above)*	have little effect on caribou in this area as the vast majority of the deferred area is already leased and will not be subject to deferral limitations. In addition, we are concerned about the exceptions to protections that are allowed under Alternative B. For example, two north-south pipeline corridors are allowed within the Teshekpuk Lake Special Area under Alternative B to enable transportation of oil and gas from offshore leases to existing infrastructure. While the draft IAP/EIS does not determine where such corridors would occur, allowing one on the east side of Teshekpuk Lake forces it through an already narrow area that is critically important for caribou movement, as the draft IAP/EIS notes. This will reduce the actual protections for caribou. Furthermore, all action alternatives allow for a potential community transportation road north of Teshekpuk Lake (see below). Alternative B also removes leasing prohibitions south of Teshekpuk Lake in an area likely to be in high demand for oil and gas leasing. While BLM claims that this is because protecting this area for yellow-billed loons is no longer necessary (p.2-4), this ignores the fact that it will also reduce protections for Teshekpuk Caribou Herd caribou that calve south of the lake (Wilson et al. 2012) and use the area in other seasons as well (Map 3-21). Surprisingly, the Affected Environment and	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	1 *(cont.)*	*(see above)*	Environmental Consequences discussion of Alternative B does not explicitly discuss the effects of these reduced protections for caribou. This should be added in the final IAP/EIS.	*(see above)*
Robards	Martin	Wildlife Conservation Society	29189	4	Special Areas	WCS is also concerned about the management of the two coastal Special Areas, Peard Bay and Kasegaluk Lagoon, under the draft EIS. These areas in which we are actively working are profoundly important for nesting and staging waterbirds (such as common eiders and shorebirds), as well as a diversity of other wildlife. Although these areas will remain closed to leasing under all alternatives, the draft EIS states directly that “sand and gravel mining would be authorized on a case-by-case basis” and that “new infrastructure may be allowed to support offshore oil and gas development or community needs.”1 These qualifying remarks essentially nullify the designation of these areas as ecological “Special Areas,” because such activities would threaten or destroy species or habitats of both conservation and subsistence importance (such as the nesting eiders). Consequently, WCS believes that sand and gravel mining or new industrial infrastructure should be excluded from Kasegaluk Lagoon and Peard Bay Special Areas as they are acknowledged as ecologically important	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Alderson	George and Frances	–	25019	1	Special Areas	The special areas are essential in the national interest, as much so as the "petroleum reserve" function of the original NPR-A designation. The undisturbed habitat is vital for many species of nesting birds and for mammals such as caribou, polar bears and marine mammals. That habitat value serves the national interest as much as does oil development in other places less valuable for wildlife. The special areas should not be reduced, they should not be opened to oil/gas leasing, and they should not be opened to construction of pipelines, roads, or other infrastructure.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Long	Becky	_	24912	2	Special Areas	The Colville River Special Area should NOT be eliminated. The 2 north-south pipeline corridor through the Teshekpuk Lake should not be permitted under this revision. Allowing such infrastructure in the revision means allowing significant impacts without allowing for adequate assessment under NEPA	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area. Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Pipeline corridors under all action alternatives are necessary to provide access to state and federal off shore leases. Any pipeline project will be subject to its own NEPA analysis, including a consideration of alternative routes and mitigation measures.
Medberry	Mike	_	27376	3	Special Areas	Any pipeline should follow a route from the Chukchi Sea or Beaufort Sea to the TAPS pipeline outside of the boundaries of special areas without preference to the economics of the route. Billions of dollars would be sent getting oil and gas to the TAPS pipeline, so put some of that money--I suggest 10% of the total expenditures--to protecting the land that has given such a bonus to our country and to the Inupiat.	Specific pipelines will be analyzed in subsequent NEPA analyses when a pipeline project is proposed, and consultation with affected stakeholders will occur at that time. A pipeline corridor would be placed where it will have the least impact on surface resources and will be permitted with appropriate mitigation measures.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Nasir	Steven	_	5737	1	Special Areas	BLM should increase protections as part of its mandate to provide maximum protections for Special Areas in the Reserve and their remarkable ecological, subsistence, recreational, and other values. When Congress authorized oil and gas leasing in the Reserve, it was mandated that activities ensure maximum protection of areas that have significant subsistence, recreational, fish, and wildlife, or historical or scenic value. The BLMs proposal to prioritize oil and gas development in these areas is contrary to its statutory obligations to provide maximum protections for surface values, such as fish and wildlife, which are critical not only for a healthy ecosystem in the Reserve, but also subsistence. Expanding oil and gas development in the Reserve is incompatible with the urgent need to address the climate crisis. Scientists have warned that most undeveloped fossil fuels, specifically Arctic oil, must remain in the ground to avoid catastrophic climate change. The BLM should institute the strongest possible protections for the Reserve and not open additional areas to oil and gas development.	The NPRPA requires "maximum protection of important surface resources consistent with oil and gas exploration." The Executive branch has great discretion in defining "maximum protection consistent with oil and gas exploration." The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. The BLM cannot legally consider an alternative that closes the Reserve to leasing.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Medberry	Mike	_	27376	1	Special Areas	Adding protection on the Colville River to 4 million acres should be seriously considered. Deleting the entire Colville River special area fails to recognize the river's worth for more than its remarkable falcons. It may be a violation of NEPA regulations not to consider other options for the special area, including maintaining the birds, mammals, fish, fossils, cultural values, the path of caribou, and recreation options.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area. Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Redinger	Paula	_	25881	1	Special Areas	The Teshekpuk Lake wetlands comprise one of the premiere habitats in the entire circumpolar Arctic. The wetlands are a haven for molting geese. The coastline north of the lake provides denning habitat for polar bears. More than half a million shorebirds nest around Teshekpuk Lake. South of the lake, loons and ducks find optimal breeding conditions. The Teshekpuk Caribou Herd gives birth to calves, forages, and winters in habitat around the lake. The sheer number of so many birds and wildlife make Teshekpuk a place that merits stronger, not weaker, protections. The cliffs along the Colville River provide important nesting habitat for several species of raptors, including Rough-legged Hawks, Arctic Peregrine Falcons, Golden Eagles, and Gyrfalcons. In an otherwise flat tundra landscape, the relatively tall cliffs provide both safety and better vantage points for hunting for these predators.	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Cliffs along the Colville River are protected by ROP E-8.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Sinker	Mary	_	26313	1	Special Areas	The Draft NPR-A IAP/EIS fails to present any scientific evidence that the listed activities on Page 33 of the Executive Summary are for the benefit and enhancement of currently special protected areas, such as Teshekpuk Lake. The Draft IAP/EIS also fails to present evidence that the current management plan protecting these special areas, while still allowing for oil and gas development in less sensitive and globally significant places within the NPR, no longer works to the benefit of these special areas. How does the BLM plan to show that the special areas protected under the current management plan should no longer be afforded these protections from the listed expected impacts of future oil and gas development?	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	–	27093	14	Special Areas	p. 2-42 Designating New or Expanding Existing Special Area DEIS: "Commenters also requested that the BLM consider expanding existing special areas or designating additional special areas for molting geese; however, the BLM dismissed from further analysis a new or expanded special area. This is because the expansion of the Teshekpuk Lake Special Area (established in part to protect migrating waterfowl) in the 2013 IAP ROD was driven largely by the changing habits of molting geese, and this expansion is reflected in all alternatives. All alternatives propose management prescriptions for protecting molting geese in the Teshekpuk Lake Special Area through a variety of stipulations and ROPs." Comments: What work has BLM and its partners done to test the efficacy of the protections in the current IAP and to determine if the habitat use and distribution of molting geese continues to change? The fact that the 2013 IAP ROD was driven (in part) by the changing habits of molting geese is no longer relevant given the westward direction of previously documented changes in the distribution of molting brant and the likelihood of on-going change (e.g., Flint et al. 2014). The more important information now is what is required to conserve internationally significant use of the Arctic Coastal Plain within and beyond the TLSA by molting geese, and brant in particular, going forward	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Impacts on important bird species resulting from each of the alternatives are considered in the IAP/EIS. The ROD will include the rationale for the alternative selected.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Sinker	Mary	_	26313	2	Special Areas	There are vast regions in the National Petroleum Reserve - Alaska that are already set aside for industrial activity. The Draft Plan does not show that additional development into vital habitats like the Teshekpuk Lake wetlands and the Colville River Special Area is necessary or responsible. How does the BLM plan to address this?	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." The order does not define what an appropriate balance is, and NEPA requires the consideration of a broad range of alternatives. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.
Strom	Mallory	_	5735	3	Special Areas	I am very concerned that the BLMs DEIS proposes to completely eviscerate the Colville River Special Area and expand oil and gas development into and around the Teshekpuk Lake Special Area and the community of Nuiqsut. These areas provide essential habitat for hundreds of species of animals and subsistence resources for over 40 Indigenous communities.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Protections remain in place under all alternatives to protect important surface resources in these areas.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Strailey	Kaarle	_	29135	6	Special Areas	All action alternatives propose opening additional areas in the Teshekpuk Lake Special Area to oil and gas leasing and industrial activity, and all eliminate the Colville River Special Area. BLM should instead strengthen protections for these special areas, not undermine or erase them from the map. Teshekpuk Lake Special Area is one of the most productive wetland complexes in the Arctic and an important calving ground for the Teshekpuk Lake Caribou Herd. It is also an important food resource for communities on the North Slope. The Colville River Special Area provides important nesting habitat for numerous raptors, including peregrine falcons, rough-legged hawks, and gyrfalcons, and is also an important traditional use area for the community of Nuiqsut. These areas were set aside because of their importance to wildlife. BLM's rush to open these important areas to oil and gas activities cuts against its obligation to provide maximum protections for key areas in the Reserve. BLM needs to protect these areas - not open them up to further industrial activity. In the midst of a climate crisis, the Arctic faces plenty of threats without this attempt to open additional areas to oil and gas. This is not the time to throw out science-based land management to allow for more habitat and climate disrupting oil development in sensitive areas.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Protections remain in place under all alternatives to protect important surface resources in these areas.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Strailey	Kaarle	–	29135	1	Special Areas	Alternative B is purported to be a more conservation oriented alternative than Alternative A with slightly less land available for development and more land closed to new infrastructure. However, eliminating some of the southern boundary of the Teshekpuk Lake Special Area removes protections for areas used by the Teshekpuk Lake Caribou herd during fall and winter. A large portion of the area added in Alt B as closed to fluid mineral leasing in the southeast Teshekpuk Lake Special Area is already leased. A substantial portion of the area added in Alt B as closed to fluid mineral leasing in the southwest Teshekpuk Lake Special Area was just sold in the December11, 2019 lease sale.	The analysis was updated with results of the 2019 lease sale. Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. Protections remain in place under all alternatives to protect important surface resources in these areas.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wood	Ruth	–	27357	3	Special Areas	One of the alternatives allows for two pipelines through the Teshekpuk Lake Special Use Area for oil and gas transport. There is no analysis done to determine whether pipeline construction through the Teshekpuk Lake Special Use Area is even feasible, yet alone environmentally responsible. Doing NEPA after leases are granted doesn't make sense, and this document appears to imply that regulations that will be applied after NEPA will be sufficient to allow the development to proceed. That is certainly not the case.	The IAP/EIS analyzes site-specific impacts to the extent possible at the leasing stage. The IAP/EIS is intended to serve as the NEPA analysis for adopting changes to the leasing program and for implementing the leasing program through individual lease sales, consistent with *Northern Alaska Environmental Center v. Kempthorne* (9th Cir., 2006). At the programmatic level, the BLM does not have enough information to analyze specific locations about where infrastructure, such as pipelines, roads, and drill pads, will be located. This plan makes no decision regarding the exact location of such corridors; potential corridors shown on maps are for representational purposes only. Specific projects will be analyzed in subsequent NEPA analyses when a project is proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wood	Ruth	–	27357	7	Special Areas	The Special Areas Colville River, Kasegaluk Lagoon, Peard Bay, Teshekpuk Lake, Utukok River Uplands, Colville River and Utukok River Uplands that are listed in Alternative A and that are part of the current IAP must be kept intact and with existing or stronger protections. These areas were identified based on scientific research. Their importance has not diminished and will increase as areas available for leasing are developed. There is not sufficient justification given for reducing or eliminating any of the Special Areas. I have traveled the Western Arctic through part of the NPRA, and I have seen firsthand the nesting raptors (Golden Eagles, Rough-legged Hawks, Peregrine Falcons, and Gyrfalcon.) The habitat is unique for successful nesting and hunting, and there is no excuse for putting these birds at risk.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area. Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.

Z.3.42 Subsistence Uses and Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	135	Subsistence Uses and Resources	Pages E-26 and E-27 (continued) Inconsistency with findings in the 2012 IAP EIS. Subsistence harvests have remained strong and there is no new data to support changing the rationale for reductions of availability of subsistence resources or access... (continued from above). The 2012 finding for the cumulative case in conjunction with all alternatives was that it would result in a reasonably foreseeable and significant restriction of subsistence use for all the NPR-A communities; however, the cumulative case considered some potentially large oil and gas projects spread across the NPR-A that are no longer foreseeable (road and pipeline between Umiat Area and Dalton Highway, Chukchi Sea development, and Beaufort Sea development) as well as the commercial gas pipeline, which development efforts and interest has decreased since that time.	Harvest amounts are only one measure of the health of a subsistence culture. The number of trips needed to harvest adequate amounts of food, the distribution of the resource across the landscape, and the amount of travel time needed to reach harvest areas can heavily impact a community's ability to harvest without a measurable change in the harvest amount. New information available through the Caribou Subsistence Monitoring Reports was incorporated into the 810 analysis and provides new data about how industrial development impacts local subsistence hunters. New information on impacts from recent developments in the NPR-A (CD-5 in 2015, GMT-1 in 2016, and GMT-2 in 2019) has also been included in the new analysis.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	133	Subsistence Uses and Resources	Pages E-26 and E- 27 (continued) Inconsistency with findings in the 2012 IAP EIS. Subsistence harvests have remained strong and there is no new data to support changing the rationale for reductions of availability of subsistence resources or access... (continued from above). BLM guidance (BLM IM AK-2011-008) specifically requires that a "proposed action and/or alternatives would be considered to significantly restrict subsistence uses if, after consideration of stipulations or protection measures . . . included as part of each alternative, it can be expected to result in a substantial reduction in the opportunity to continue subsistence uses..." - The DEIS does not cite any new information to support a change from the 2012 findings. Alternative A (the status quo) finding of may significantly restrict subsistence uses for the community of Nuiqsut is based on reductions in the availability of subsistence resources "caused by alterations of their distribution" and limitations on subsistence access. However: - BLM fails to note that the Nuiqsut caribou harvest is very strong and has not experienced a decline as a result of NPR-A exploration and development since 2012. - BLM fails to include any new information or data to support that NPRA development (with existing best practices and BMPs) cause an alteration of subsistence	Harvest amounts are only one measure of the health of a subsistence culture. The number of trips needed to harvest adequate amounts of food, the distribution of the resource across the landscape, and the amount of travel time needed to reach harvest areas can heavily impact a community's ability to harvest without a measurable change in the harvest amount. New information available through the Caribou Subsistence Monitoring Reports was incorporated into this 810 analysis and provides new data about how industrial development impacts local subsistence hunters. New information on impacts from recent developments in the NPR-A (CD-5 in 2015, GMT-1 in 2016, and GMT-2 in 2019) has also been included in this new analysis. Under Alternative A, there is no requirement for permittees to allow subsistence users to access industrial roads or for permittees to build ramps over roads to facilitate overland hunters' crossing. Without such a requirement, the BLM cannot assume that all permittees will build access ramps or will allow hunters to use the roads. Failure to do so would result in a significant restriction on subsistence hunters' access to harvest areas. Under the action alternatives, the ROPs were adjusted to require permittees to build access ramps at appropriate locations and allow access to industrial roads for subsistence hunters; thus, a finding of a significant restriction to hunter

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(see above)	*(see above)*	*(see above)*	*(see above)*	133 *(cont.)*	*(see above)*	resources and instead bases the conclusion on if changes in distribution of skittish behavior should occur. While the finding of limitation of subsistence user access does acknowledge the countervailing effects of hunters use of the roads, BLM guidance (BLM IM AK-2011-008) specifically requires that a "proposed action and/or alternatives would be considered to significantly restrict subsistence uses if, after consideration of stipulations or protection measures . . . included as part of each alternative, it can be expected to result in a substantial reduction in the opportunity to continue subsistence uses..." (continued below).	access was not made for the action alternatives.
Schell	John	ConocoPhillips Alaska	29272	132	Subsistence Uses and Resources	E-26 and E-27 Inconsistency with findings in the 2012 IAP EIS. Subsistence harvests have remained strong and there is no new data to support changing the rationale for reductions of availability of subsistence resources or access... These findings are different than the findings in the 2012 IAP EIS. Subsistence harvests have remained strong and there is no new data to support changing the rationale for reductions of availability of subsistence resources or access; especially with the BMPs and project specific stipulations that have been applied to projects such as GMT1 and GMT2. The DEIS preliminary findings in ANILCA Section 810(a) evaluation significantly deviate	Harvest amounts are only one measure of the health of a subsistence culture. The number of trips needed to harvest adequate amounts of food, the distribution of the resource across the landscape, and the amount of travel time needed to reach harvest areas can heavily impact a community's ability to harvest without a measurable change in the harvest amount. New information available through the Caribou Subsistence Monitoring Reports was incorporated into this 810 analysis and provides new data about how industrial development impacts local subsistence hunters. New information on impacts from recent developments in the NPR-A (CD-5 in 2015, GMT-1 in 2016, and GMT-2 in 2019) has also been included in this new analysis.

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(see above)	*(see above)*	*(see above)*	*(see above)*	132 *(cont.)*	*(see above)*	from the 2012 IAP ANILCA 810 analysis without presentation of new information to support this change. This deviation is not justifiable, in light of the following: - In the 2012 IAP Final EIS, the ANILCA 810 findings for alternatives A, B¬1, B-2 and even C (which would have made 17.9 million acres available for oil and gas leasing) were that they "would not significantly restrict subsistence uses by communities in or near the NPR-A (Anaktuvuk Pass, Atqasuk, Barrow, Nuiqsut, Point Lay and Wainwright.)" - The 2012 findings recognized that adequate stipulations and best management practices have been incorporated into Alternatives A, B-1, B-2 and C to ensure that significant restrictions to subsistence uses and needs would not occur. The current DEIS does not acknowledge proposed BMPs/ROPs in the ANILCA 810 findings and that they would mitigate the impacts and effect the findings. (continued below).	The 810 analysis considers the proposed BMPs or ROPs under each alternative before making a finding of whether each alternative may cause a significant restriction of subsistence uses.
Bruno	Jeff	State of Alaska	29317	59	Subsistence Uses and Resources	Page #: 3-226 Table or figure: Reviewer Name/Agency: ANILCA Comment: Text, last sentence on page, directs readers to Section 3.4.3.1 for an in-depth discussion of subsistence management in the planning area. Section 3.4.3.1 does not exist. Suggestion if applicable: Please correct reference.	The text references Section 3.4.3.1 in the 2012 NPR-A IAP/EIS. The reference is correct.

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Bruno	Jeff	State of Alaska	29317	44	Subsistence Uses and Resources	Page #: 3-226 Table or figure: Reviewer Name/Agency: ADF&G Comment: Text, last sentence on page, directs readers to Section 3.4.3.1 for an in-depth discussion of subsistence management in the planning area. Section 3.4.3.1 does not exist. Suggestion if applicable: Please correct reference.	The text references Section 3.4.3.1 in the 2012 NPR-A IAP/EIS. The reference is correct.
Donahey	Leah	Alaska Wilderness League	29320	226	Subsistence Uses and Resources	All alternatives in the draft EIS lead to major, long-term, and widespread harm to subsistence resources and users and their sociocultural systems in and around the Reserve. BLM's subsistence and sociocultural analyses show that as many as 42 communities may be harmed by the activities in the planning area, and multiple communities will experience loss of access to subsistence resources under all four of BLM's alternatives. This is unacceptable. BLM's own analysis shows that this draft EIS does not meet BLM's mandates under NEPA and ANILCA § 810 to explore alternatives that protect subsistence resources and users, nor does it meet its mandate under the NPRPA to protect the Reserve's special values. Moreover, given the enormity of impacts this EIS contemplates for subsistence resources and users, BLM must take a much closer look at the specific impacts under each of the alternatives and provide comparisons among them. Finally, the cumulative impacts analyses for subsistence and sociocultural systems are wholly inadequate.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.

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Donahey	Leah	Alaska Wilderness League	29320	233	Subsistence Uses and Resources	BLM recognizes that air traffic, and particularly helicopter traffic, has been one of the most commonly reported impacts to caribou hunters.1201 Despite this, BLM makes no attempt to consider a mitigation measure to address these impacts. BLM should consider measures that would limit the number of flights, flight patterns, and timing restrictions to reduce these impacts.	All ROPs and lease stipulations requiring studies have been adjusted to allow for the use of existing data where such data exists and to prioritize collection methods that do not require aircraft use where such data does not exist.
Donahey	Leah	Alaska Wilderness League	29320	232	Subsistence Uses and Resources	BLM should adopt binding measures that keep infrastructure out of key subsistence and habitat areas, and should not rely on a vague standard that has already been disregarded by facilities in the NPR-A to date. BLM also recognized that Nuiqsut hunters have had problems with roads and infrastructure deflecting caribou, particularly during times of high human activity.1200 Despite this, BLM does nothing to analyze mitigation measures to address this impact, including potential timing limitations that could cap activities on roads during key times when caribou are present in the area.	Protections for subsistence users and subsistence resources are outlined in ROPs E-1, F-4, H-1, H-2, H-3, and H-4, and Stipulation K-9.

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Donahey	Leah	Alaska Wilderness League	29320	234	Subsistence Uses and Resources	BLM's analysis of the effectiveness of the leasing deferral area under Alternative B is also deficient. BLM claims "[d]eferring leases for 10 years would allow for continued monitoring of impacts on subsistence uses resulting from other relatively recent developments to the west of the Colville River, such as Colville Delta-5, GMT1, and GMT2" and "would allow greater analysis and understanding of subsistence impacts in order to inform decisions about future development within the community's traditional lands."1202 On the other hand, BLM also notes elsewhere in the DEIS that "much of the land in the deferral area has already been leased, and BLM cannot prohibit development or renewal of existing leases."1203 BLM does not reconcile these two competing considerations or analyze whether such a measure would actually be effective. We appreciate BLM's effort to incorporate a measure that would take key subsistence areas off limits to leasing, but BLM should do it in a way that actually achieves meaningful protections, truly halts activities in sensitive areas, and places Nuiqsut's remaining subsistence use areas and areas that are important habitat for subsistence resources off limits to leasing.	The BLM consulted with the community of Nuiqsut to determine the most appropriate boundary for the leasing deferral area.

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Kenning	Erik	ASRC	29299	15	Subsistence Uses and Resources	Local Access to Industry Roads for Subsistence Purposes The access currently provided to GMT1 and GMT2 to the residents of Nuiqsut for subsistence purposes should be extended to any future developments as it provides great benefit to local residents. Access to these roads is a countervailing factor by helping to create new subsistence opportunities. We support the current situation where the operator voluntarily works with the community to design, locate and construct subsistence pullouts, snow machine ramps and even boat ramps to enhance local access to subsistence areas.	ROP E-1 requires permittees to build access ramps along roads and allow subsistence users to use industry roads, subject to reasonable safety requirements.

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Kenning	Erik	ASRC	29299	5	Subsistence Uses and Resources	Since the 2012 IAP EIS, the Nuiqsut Spur Road, road to CD5, and the road to GMT1/GMT2 have been constructed and available for subsistence users as well as the permitting of the Native Village of Nuiqsut Colville River Access Road. Through the use of these roads by subsistence users, we have seen how road connectivity can be a countervailing impact by expanding the range of subsistence and has resulted in an increase in overland hunting (which can be more economical) and helps to keep shareholders connected with their subsistence culture. BLM should capture this trend in their analysis and consider how additional access to industry infrastructure may inadvertently address the "avoidance effect". As BLM considers the countervailing impacts, BLM should also evaluate lessons learned from industry roads with respect to height of the road, slope, and the use of subsistence pullout or ramps. For instance, in a recent public meeting in Nuiqsut for the GMT2 SEIS, concerns were voiced that the slope of subsistence access ramps were challenging for fully-loaded sleds and the height of the road may be problematic. BLM should consult with local subsistence users on their experience of what enables their subsistence practice and what can be improved.	ROP E-1 requires permittees to build access ramps along roads and allow subsistence users to use industry roads, subject to reasonable safety requirements.

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Whiteman	Douglas	City of Atqasuk	27190	1	Subsistence Uses and Resources	Resource harvesting should also remain as such, with potential identified, possibility factored, mitigation developed and then determination of worthiness at that point in time. Broad based modeling efforts do contain such a high degree of speculation, at great expense, that incremental growth of a people is stifled. It is hoped that the potential within NPRA could be further determined so that decisions regarding possibility could be more accurately discussed.	Project proposals would be subject to additional NEPA analyses at the time they are proposed. Additional mitigation measures would be considered at that point.
Schell	John	ConocoPhillips Alaska	29272	113	Subsistence Uses and Resources	Page 3-237 5th Paragraph “While most impacts on marine mammal hunting would occur in the summer, in association with offshore vessel and barge traffic, it is possible that onshore seismic activities could affect springtime (March/April) seal hunting in Nuiqsut, Utqiagvik, and Wainwright and spring bowhead whale hunting in Utqiagvik and Wainwright.” This statement seems speculative. There is no citation or discussion about how onshore seismic activities could affect springtime seal hunting.	The marine mammal section addresses potential impacts on ringed seals from nearshore seismic activity. The Final IAP/EIS subsistence section was updated for consistency.

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Schell	John	ConocoPhillips Alaska	29272	116	Subsistence Uses and Resources	Page 3-238 Last paragraph above Infrastructure This paragraph discusses the issue of avoidance of areas by subsistence hunters due to development. This section should also discuss the countervailing use of roads by subsistence hunters, such as the top paragraph on page 3-240 that outlines the benefits of development infrastructure to subsistence hunters. Recently, members of the Nuiqsut community have had great success by utilizing roads to access subsistence areas.	The Final IAP/EIS Section 3.4.4 was updated, adding information on potential countervailing benefits of roads for subsistence users.
Schell	John	ConocoPhillips Alaska	29272	127	Subsistence Uses and Resources	Page E-1 2 Statement: "All action alternatives would remove the Colville River Special Area from the BLM's management plan for the NPR-A and would manage the 12 rivers in the southwestern portion of the NPR-A previously found suitable for designation in the National Wild and Scenic Rivers System to protect their free flow, water quality, and outstandingly remarkable qualities." This statement should be clarified to read that Alternative B is the only alternative recommending the 12 rivers be designated under the Wild and Scenic Rivers System where A, C and D do not.	The Final IAP/EIS has been updated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	128	Subsistence Uses and Resources	Page E-2 Second numbered list on page Inconsistency with BLM IM AK- 2011-008 guidance BLM lists the three factors to be considered when determining if a significant restriction on subsistence may result from the action and references BLM IM AK-2011-008 guidance. The wording in this DEIS Appendix does not match the wording on pages 4 and 5 of the guidance. Specifically item 3 needs to be corrected. The BLM guidance document states that BLM should consider, 'A limitation on access of subsistence users to harvestable resources. Such an evaluation includes only physical and legal barriers."	The Final IAP/EIS has been updated to align with the BLM IM AK-2011-008 guidance.
Schell	John	ConocoPhillips Alaska	29272	134	Subsistence Uses and Resources	Pages E-26 and E-27 (continued) Inconsistency with findings in the 2012 IAP EIS. Subsistence harvests have remained strong and there is no new data to support changing the rationale for reductions of availability of subsistence resources or access... (continued from above) - The DEIS does not cite any new information to support a change from the 2012 findings. Alternative A (the status quo) finding of may significantly restrict subsistence uses for the community of Nuiqsut is based on reductions in the availability of subsistence resources "caused by alterations of their distribution" and limitations on subsistence access. However: - BLM fails to note that the Nuiqsut caribou harvest is very strong and has not experienced a decline as	Continued harvests of a resource at adequate levels does not equate to a lack of impacts on resource availability. Data since the 2012 IAP EIS show an increase in the incidence of impacts on caribou hunting, including decreased harvest success rates. The BLM reviewed the text and added references regarding impacts on subsistence resource availability. The commenter does not provide references to support claims of increased GMT1 and GMT2 road use.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	134 *(cont.)*	*(see above)*	a result of NPR-A exploration and development since 2012. - BLM fails to include any new information or data to support that NPRA development (with existing best practices and BMPs) cause an alteration of subsistence resources and instead bases the conclusion on if changes in distribution of skittish behavior should occur. While the finding of limitation of subsistence user access does acknowledge the countervailing effects of hunters use of the roads, BLM dismisses this benefit based this on data that only included three months of the GMT1 road being in place (SRB&A 2019). Since that time, residents use of the GMT1 road and now the GMT2 road has significantly increased and has been cited by many hunters as providing improved access to caribou resources. They also dismiss this countervailing benefit since there is no requirement or BMP in Alternative A to allow subsistence users access; however, BLM always has the authority which they exercised in the GMT1 and GMT2 with supplemental BMPs which require subsistence access in their respective RODs. (continued below).	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	109	Subsistence Uses and Resources	Page 3-227 Paragraph 3 “The combined use areas for these four communities...” It is unclear if this statement refers to the six communities (the primary communities) or if it is only discussing the four whaling communities.	The Final IAP/EIS Section 3.4.4. was updated for clarity.
Schell	John	ConocoPhillips Alaska	29272	115	Subsistence Uses and Resources	Pages 3-237 and 3-238 Bottom paragraph on 237 and top of 238. “In addition, underwater shock waves could disturb, injure or kill fish in winter. (Section 3.3.4)...these individuals could experience decreased fishing success from seismic activities as has been reported in other communities (SRB&A 2009a). Reduced catch rates resulting from the use of seismic air guns have been documented by Engas, Lokkeborg, and Soldal (1996) and Engas and Lokkeborg (2002). The 2009a SRB&A study included statements from hunters related to historic seismic operations and use of dynamite. While recent practices with vibroseis rigs can create sound pressures under the ice, “the impacts are thought to be minimal when careful seismic survey guidelines are followed” (Page 3-113, Morris and Winters 2005). The SRBA 2009a study does not reference impacts from more recent seismic technology. The discussion regarding seismic air guns is not applicable for on-shore NPR-A activities and the two studies referenced regarding reduced catch rates were conducted in off-shore Norway and are not applicable to fish in	The Final IAP/EIS Section 3.4.4 has been updated for consistency and recent seismic practices.

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(see above)	*(see above)*	*(see above)*	*(see above)*	115 *(cont.)*	*(see above)*	rivers. BLM must reconsider the applicability of this discussion.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	120	Subsistence Uses and Resources	Page 3-241 3 "Temporary deflections of caribou in the NPR-A from roads have already been observed by Nuiqsut hunters, who indicate that caribou tend to hesitate on reaching the CD- 5 and GMT1 roads and are less available in areas closer to the community." This statement is based on observations and only 3 months of use along the GMT1 road. There are many factors including actual hunting along the road which should be incorporated into a study to validate this. In summer/fall 2019, many caribou were present near the community and were observed crossing roads.	Observations of hunters are one of the primary sources of information regarding impacts of roads on local caribou movement and behavior. Use of roads by hunters and associated benefits are discussed in the analysis. Information regarding hunter use of roads and observations of caribou crossing roads do not invalidate observations regarding caribou being temporarily deflected. The BLM reviewed the available data and edited the text, as appropriate, for clarity.
Schell	John	ConocoPhillips Alaska	29272	121	Subsistence Uses and Resources	Page 3-244 Last Paragraph This paragraph discusses increased employment and income and fails to mention NSB Property Tax revenue. This is no discussion on NPR-A Impact Mitigation funds. Oil and gas property tax funds over 90% of the NSB revenue. The NSB is the largest employer in North Slope villages through village infrastructure, schools, health clinics, etc. and should be included in this paragraph. BLM should also expand or reference discussion that, with development, the NPR-A Impact Mitigation funds would increase and the purpose of these funds is to address impacts (including subsistence impacts) from oil and gas development in the NPR-A.	North Slope Borough revenues are addressed in Section 3.4.4, Sociocultural Systems, and 3.4.11, Economy. The BLM reviewed these sections for discussion of mitigation funds and incorporated the information into the subsistence section, as appropriate.

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Schell	John	ConocoPhillips Alaska	29272	122	Subsistence Uses and Resources	Page 3-248 3rd paragraph under Alternative B heading “In addition, leases would be deferred for at least 10 years in an area bounded by the Colville River on the east, Harrison Bay on the north, and Umiat on the south...Deferring leases for 10 years would allow for continued monitoring of impacts on subsistence uses resulting from other relatively recent developments on the west, such as CD-5, GMT1 and GMT2.” This paragraph does not acknowledge the potential for development on leases, such as in Bear Tooth Unit and GMTU that have been already issued in this area and that they would still be valid.	The Final IAP/EIS was updated for clarification for development in existing leases.
Schell	John	ConocoPhillips Alaska	29272	112	Subsistence Uses and Resources	Page 3-237 Paragraph 5 Noise and traffic associated with seismic surveys States seismic trails could cause flow changes in water affecting fish. Modern seismic survey transportation methods and similar practices during at least the last 20 years of exploration and seismic activity on the North Slope do not alter hydrology and ConocoPhillips is not aware of any documented occurrence. Snow ramps or other build ups are removed after use, and do not affect landforms or cause marked change to hydraulic regimes. Rolligon vehicles are rarely used for seismic survey activities.	This text is consistent with the conclusions in Section 3.3.3, Fish, which state “Oil and gas activities that could affect flow alteration and fish passage include construction of ice roads, snow management activities, use of rolligons or other off-road vehicles for seismic surveys, maintenance, and the placement of bridge piers or piles in waterbodies.” The BLM reviewed Section 3.3.3 for changes and revised it, as necessary.

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Schell	John	ConocoPhillips Alaska	29272	114	Subsistence Uses and Resources	Page 3-237 Second to last paragraph on page Last sentence in paragraph, “Noise and Rolligon traffic associated with seismic surveys in leased and unleased areas could cause flow alterations, thus blocking fish passage.” The statement that “noise” from surface traffic of low-ground-pressure vehicles is not supported by any science and seems utterly baseless. How can noise from a low-ground-pressure vehicle cause flow alterations? The state ADF&G permits all fish crossings to ensure that fish passage is maintained. BLM should reconsider statements such as this that seem to lack scientific basis.	The Final IAP/EIS Section 3.4.3. was updated for consistency.
Schell	John	ConocoPhillips Alaska	29272	117	Subsistence Uses and Resources	Page 3-239 Paragraph 3 Last sentence, “Data indicate a decrease in the use of certain areas, such as the Nigliq Channel, which is attributed to development and other factors.” (SRBA Forthcoming) Year 10 of the Nuiqsut Caribou Subsistence Monitoring project report is now final. This is the SRB&A forthcoming reference. In the Year 10 report, Table 12 shows percentage of caribou harvest locations in the Nigliq Channel Area was 18% in Year 10 , vs. 19% in Year 1, and the percent of the total caribou harvest ranged from 23% in Year 1, to 17% in Year 10. Since this data is based on a PERCENTAGE of the harvest, since the completion of the Spur Road and CD5 road, the percent of harvest to the West of	The sentence is not referencing the percentage (or number) of harvests in that area, but the frequency of use of that area (“decrease in the use of certain areas”). The sentence is in the context of avoidance, not harvest amounts or success. The Final IAP/EIS has been updated for clarity.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	117 *(cont.)*	*(see above)*	Nuiqsut has gone from 18% in Year 1 to 43% in Year 8 and remained strong at 30% in Year 10. If more caribou are harvested in the West Area, it makes sense that the percent of total harvest in Nigliq goes down, but that doesn't mean the total number of harvests in the area as gone down. "It is important to note that while the percentage of harvest in certain areas has changed from year to year, these percentages are relative to the total amount harvested within a given year. Thus, while the percentage of harvest in a certain area may decrease from the previous year, it is possible that the number harvested within that area actually increased." Page 69, SRB&A Year 10 report. BLM must present all aspects of the data to ensure a well-rounded analysis. This is an example of presentation of partial data that misrepresents the impact.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	119	Subsistence Uses and Resources	Page 3-239 Last paragraph Last sentence, "..in addition, use of roads for subsistence would likely decrease with distance to the community." This is not supported. The Year 10 SRB&A Nuiqsut Caribou Subsistence Monitoring report only covered 3 months of use of the GMT1 road. Observations from the past two years, which included a full year of access on the GMT1 road, and more recent use of the GMT2 road during fall of 2019 indicate subsistence hunters travel as far as they need to get caribou and that road access facilitates this access.	More recent data continue to show a slight decrease in use with distance from the community. The Final IAP/EIS was updated to clarify that the GMT1 road was in place for only several months at the time of data collection.
Schell	John	ConocoPhillips Alaska	29272	123	Subsistence Uses and Resources	Page 3-252 2nd paragraph after quote "Nuiqsut residents use the roads connecting their community to the nearby Alpine and GMT developments, although road use declines with distance from the community." See ConocoPhillips October 29, 2019 Willow DEIS comments regarding distance from community. From ConocoPhillips comments: "BLM concludes that local use of the roads for subsistence in the project area would be 'less common' (page 140) due in part to the distance from the community. This is based on Table 3.16.7, which breaks up the existing roads into four areas and concludes that the use of the roads 'lessened with distance.' The table shows 40% of households used the road between Alpine CD5 and GMT1 vs. 52% of households that used the Spur Road. BLM's analysis,	While it is true that residents must use the Spur Road to continue on to the CD5 and GMT1 roads, it remains true that more people simply use the Spur Road to hunt and do not continue on to roads farther away. Data are not available at this time to conclude whether this is because residents are successful along the Spur Road and therefore have no need to go farther.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	123 *(cont.)*	*(see above)*	however, fails to account for the fact that to get to farther roads (such as the GMT1 road), Nuiqsut residents must travel on the nearby roads (such the Spur Road), so the Spur Road necessarily has the highest use. If harvesters get a caribou off the nearby Spur Road, they have no need to travel further. All Table 3.16.7 really indicates is that successful harvests are occurring close to the community via the Spur Road. Having more road available, such as the Willow Road, would thus create more convenient access to caribou, especially caribou that are farther away from Nuiqsut."	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	129	Subsistence Uses and Resources	Page E-13 Paragraph before Table 2 and Table 2 Unclear or misrepresented data and analysis: The text references Figure 3 for Atqasuk use areas and says a small portion of use areas for large and small land mammals would also overlap areas of high hydrocarbon potential. Figure 3 only has all resource use areas that do not appear to overlap with the high hydrocarbon potential area. This is misleading and either should quantify the overlap as it visually does not overlap. The same can be said for Anaktuvuk Pass (Figure 2) in which Table 2 shows Large and Small Land Mammal Use area in the high hydrocarbon potential area. The amount visible on Figure 2 is so insignificant that percentages should be stated vs. just H in Table 2.	On both maps, the use areas visually overlap with the periphery of areas of high hydrocarbon potential, and the only resources that overlap with areas of high hydrocarbon potential (small and large land mammals) are clearly shown in the table. The Table 2 footnote was updated for clarification.

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Schell	John	ConocoPhillips Alaska	29272	130	Subsistence Uses and Resources	Page E-17 Paragraph under subsection heading Statement: " Atqasuk has a higher percentage of subsistence use areas overlapped by most subsistence use areas (with the exception of Atqasuk large land mammals and small land mammals) are in areas of low to medium development potential." See comment above.	The data presented in the sentence are clearly shown in Tables 1 and 2 in Appendix E. References were added to Tables 1 and 2.
Schell	John	ConocoPhillips Alaska	29272	136	Subsistence Uses and Resources	Page E-43 Reference to SRB&A 2018 B should be deleted (Nuiqsut Paisanich) and is inaccurately cited as it was not done for ConocoPhillips. The SRB&A 2018 B was never finalized or approved by the entities in Nuiqsut (City of Nuiqsut, NVN, or Kuukpik Corporation). North Slope Borough is currently working on the final version therefore the SRB&A document should not be used or quoted in BLM documents. (Note: In the Volume 1 Reference Section (Reference page 53), SRB&A 2018c is described as Nuiqsut Paisanich update, done for ConocoPhillips Alaska, Inc. This is incorrect. SRB&A performed this work under contract with the City of Nuiqsut who did not approve the final version.	The reference has been updated to reflect the correct contract information. SRB&A completed their contract with the City of Nuiqsut and finalized the document (Nuiqsut Paisaŋich – A 2018 Addendum) under the terms of that contract. The NSB version will not change SRB&A's document, but SRB&A understands that it will include an updated planning portion to accompany SRB&A's document. The new document will be a different, comprised of the SRB&A 2018 Ethnographic Addendum and NSB's forthcoming management plan. Thus the integrity of SRB&A's 2018 Nuiqsut Paisaŋich will remain and is appropriate to cite.

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Schell	John	ConocoPhillips Alaska	29272	111	Subsistence Uses and Resources	Page 3-236 Paragraph 4 "Impacts from air and ground traffic would be highest during the peak caribou hunting season..." ConocoPhillips disagrees with BLM's statement that ground traffic would be highest during the peak caribou hunting season. This is not necessarily the case, as winter is typically the peak construction and work period for oil & gas activity.	The sentence does not state that ground traffic would be highest during the peak caribou hunting season; instead it states that impacts from ground traffic would be highest during the peak hunting season (when there would be more likelihood of conflicts with subsistence users).
Schell	John	ConocoPhillips Alaska	29272	118	Subsistence Uses and Resources	Page 3-239 Paragraph 4 "Some residents in Nuiqsut have reported difficulty safely crossing certain gravel roads with snowmachines or four-wheel drive vehicles due to steep side slopes." ConocoPhillips' comment from our October 29, 2019 letter to BLM on comments on the Willow draft EIS are restated here: "The ANILCA 810 Analysis also includes in its rationale for finding of limitations on subsistence user access the assertion that some Nuiqsut hunters have reported difficulty crossing existing gravel roads, even when using subsistence ramps, particularly when hauling a heavy sled. After hearing these concerns, ConocoPhillips consulted Nuiqsut hunters and conducted trials using a snowmachine and sled. As a result, in the winter of 2019, changes were made to the existing ramps at GMT1 and CD5 roads to improve the ability of hunters to cross the roads using snowmachines and ATVs, and we carry this learning forward into design of the Willow roads. When real impacts are identified,	The Final IAP/EIS has been updated to note upgrades to the ramp design, which would likely mitigate these impacts on hunters.

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(see above)	*(see above)*	*(see above)*	*(see above)*	118 *(cont.)*	*(see above)*	ConocoPhillips works collaboratively to find solutions. We recommend that BLM remove this issue from the analysis of potential impacts of the Willow development because it has been addressed by ConocoPhillips." BLM must consider removing this issue as an "impact" as ConocoPhillips has demonstrated that this issue is mitigated through communication and action. Otherwise, the incomplete and misleading statement becomes part of a record that may be cited in the future, perpetuating an error that incorrectly magnifies an impact. To be fair in the analysis, mitigation of the impact should at least be discussed by BLM in this IAP/EIS.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	131	Subsistence Uses and Resources	Pages E-22 and E-24 Second paragraph (E- 22) and last paragraph on E-24 Statement: " While use of roads has increased, caribou harvests in the vicinity of roads have not increased, indicating that while roads may mitigate impacts to resource availability they do not provide a net benefit to resource availability; however, these conclusions are based on a relatively small number of years, and the use and benefits of roads may evolve over time." ConocoPhillips disagrees with BML's analysis of road use, and asks BLM to reconsider this issue. This comment relates to a similar issue on page 3-252 See ConocoPhillips October 29, 2019 Willow DEIS comments regarding distance from community. From	While it is true that residents must use the Spur Road to continue on to the CD5 and GMT1 roads, it remains true that more people simply use the Spur Road to hunt and do not continue on to roads farther away. Data are not available at this time to conclude whether this is because residents are successful along the Spur Road and therefore have no need to go farther. In addition, the paragraph mentioned does state that residents use roads and that use of roads has offset some of the impacts of increased infrastructure and activity. The analysis must use the available data to discuss both the positive and negative aspects of all project features.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	131 *(cont.)*	*(see above)*	that Willow comment letter: “BLM concludes that local use of the roads for subsistence in the project area would be 'less common' (page 140) due in part to the distance from the community. This is based on Table 3.16.7, which breaks up the existing roads into four areas and concludes that the use of the roads 'lessened with distance.' The table shows 40% of households used the road between Alpine CD5 and GMT1 vs. 52% of households that used the Spur Road. BLM's analysis, however, fails to account for the fact that to get to farther roads (such as the GMT1 road), Nuiqsut residents must travel on the nearby roads (such the Spur Road), so the Spur Road necessarily has the highest use. If harvesters get a caribou off the nearby Spur Road, they have no need to travel further. All Table 3.16.7 really indicates is that successful harvests are occurring close to the community via the Spur Road. Having more road available, such as the Willow Road, would thus create more convenient access to caribou, especially caribou that are farther away from Nuiqsut.”	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Whiting	Alex	Native Village of Kotzebue	27827	3	Subsistence Uses and Resources	Given that the Colville River headwaters are located in a low development potential area, but in a high density fall migration area, we are requesting that the BLM create a modified URUSA that will include the Colville River headwaters. In order to clarify our request, we have created a map illustrating what we are proposing (see below). We believe that this is a responsible approach to management of the NPRA. It will provide maximum protection to the calving area and the migration area, while sacrificing very little if any development opportunities, whether real or hypothetical. Our citizens continue to heavily rely on the WACH for their cultural, spiritual, and nutritional needs. In addition, this resource provides economic benefits to the thousands of citizens located across the WACH range in multiple communities by providing a major source of food and materials that they otherwise would have to pay large sums in order to replace, which most households would be challenged to afford. Of course, the reality on the ground is that there is no real substitute to replace this resource, due to the unreliable access, high cost, and low-quality, western foodstuffs available in most communities. Besides the comparatively poor nutritional substitution, western food does not provide any of the cultural and spiritual benefits provided by caribou and other wild foods harvested off the land.	The Utukok River Uplands Special Area boundary was modified in all the action alternatives to include the headwaters of the Colville River.

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Whiting	Alex	Native Village of Kotzebue	27827	1	Subsistence Uses and Resources	The Tribe believes that the existing URUSA is the minimum size needed to assist in protecting this area for continued caribou calving and insect relief and any pressure to shrink, do away with, or allow industrial development in this area should be resisted. The communities of northwest Alaska, among many others, depend on a healthy WACH and the Utukok River upland area is critical to continued caribou production. The WACH has decreased in recent years and is only now beginning to stabilize. The reason it is able to recover at all is the high-quality habitat still existing and the minimal industry related disturbances across its range. Climate change is a developing challenge for the long-term health of the herd. It is already known that this area is being affected by climate change and the current calving area is likely to change over time due to the changes to the seasonal timing of breakup and new vegetation growth. Having a large URUSA provides maximum flexibility for the core calving area to accommodate at least some amount of change in the future.	Designation of a special area, in and of itself, does not provide any protection. Land management prescriptions in the special areas differ by alternative.

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Whiting	Alex	Native Village of Kotzebue	27827	4	Subsistence Uses and Resources	The Native Village of Kotzebue proposes an adjustment to the Utukok River Uplands Special Area to include the Colville River headwaters and make it all unavailable for leasing and no new non-subsistence infrastructure. This would be included under the selected preferred alternative regardless of how the rest of the alternative was designed. It would provide assurance that the western Arctic caribou herd calving area and high density fall migration area would be protected from future habitat fragmentation and industrial disturbance with very little real cost to any future development proposals, or lease requests, given the low potential for fluid minerals in this area. It would provide a great benefit to the western Arctic Caribou herd and the subsistence users that depend on them. We have modified the map below to illustrate our request. See Attached Figure: Native Village of Kotzebue Proposed Utukok River Uplands Special Area	The Utukok River Uplands Special Area boundary was modified in all the action alternatives to include the headwaters of the Colville River. Alternative B considers making the entire Utukok River Uplands Special Area unavailable for leasing or new infrastructure.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Whiting	Alex	Native Village of Kotzebue	27827	2	Subsistence Uses and Resources	Significantly, the fall migration of caribou into our region begins at the southern end of the URUSA and Colville River headwaters. All the action alternatives presented allow for industrial activities to occur in this area. Even the most conservative proposed Alternative B, has areas open to potential infrastructure and industrial activity in the Colville headwaters. This is concerning because disturbance to the fall migration at its northern extent, which these Colville headwaters represent, can negatively impact the timing and trajectory of the fall migration, both of which can affect whether our citizens have an opportunity to access caribou in their prime and before the rut begins (which makes the bulls no longer edible). We have already experienced impacts from human activity, in the form of transported hunters utilizing the mountain passes, the Aniuk River in particular, that disturb the flow of caribou into our region during the fall migration impacting the success of our fall hunt.	The Utukok River Uplands Special Area boundary was modified in all the action alternatives to include the headwaters of the Colville River. Alternative B considers making the entire Utukok River Uplands Special Area unavailable for leasing or new infrastructure.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	10	Subsistence Uses and Resources	The IAP should include strong subsistence use area protections. Nuiqsut's traditional subsistence use areas where abundant resources can be harvested are places of great importance to NVN. These places are culturally irreplaceable and are incrementally (but consistently) being changed by oil and gas exploration activities and outright lost to development projects. As we have advocated in the past, we want all remaining, high-value subsistence use areas to be protected for current and future generations. A particular area of importance, among others, is the Colville (Kuukpik) River. This river not only provides numerous subsistence resources, but it is also a major transportation route for our hunters to access resources across the landscape. Fish Creek is another especially important subsistence use area that is threatened by existing and planned development. Nuiqsut residents use this area year-round for caribou and furbearer hunting and trapping, fishing, and other subsistence activities. Remaining undeveloped portions of the Fish Creek watershed should be protected, and access to these areas must be maintained.	Both Fish Creek and the Colville River are protected by no surface occupancy stipulations within their setbacks. The BLM is consulting with the community of Nuiqsut to determine the most appropriate boundary for the leasing deferral area.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	11	Subsistence Uses and Resources	Areas identified for their subsistence importance should be meaningfully safeguarded so that oil companies and changes in administrative priorities cannot compromise the integrity of these places. BLM's decision to allow ConocoPhillips to violate the Fish Creek Buffer exemplified how discretionary protective measures fail to protect important places on the landscape. NVN would like a meaningful role in the stewardship of these protected subsistence use areas. This role can involve both management and monitoring efforts that provide employment opportunities for residents of the community. These jobs can be paid for by a compensatory mitigation fund.	Areas containing special surface values, like the Fish Creek buffer, are subject to additional site-specific measures to limit impacts. In development of the Final IAP/EIS, the BLM is continuing consultation with Tribes and has reached out to consult directly with the Native Village of Nuiqsut. When the BLM receives development proposals that may affect the community it will offer additional Native consultation. Providing employment opportunities for local residents is beyond the scope of the plan. Except as required by law, BLM policy prohibits imposing compensatory mitigation on public land users.
Patkotak	Hugh	Olgoonik Corporation	29297	4	Subsistence Uses and Resources	Wainwright residents subside from both the Western Arctic caribou herd and the Teshekpuk Lake caribou herd so should be considered when developing alternatives.	The ANILCA 810 analysis considered impacts on Wainwright and determined that there may be a significant restriction under Alternative D, due to potential population level impacts on the Teshekpuk Caribou Herd.
Williams	Vera	Utqiavik	27403	7	Subsistence Uses and Resources	Compensation: What are you going to give the tribal people, the people that live off the land? What are we going to live off of if we have to try to sustain to live, especially if our migrating food -- if it's going to be affected, caribou, fish, what have you? You know, we don't live on beef; we live on our subsistence food.	The ROPs and stipulations outlined in the IAP/EIS provide protections for important subsistence resources. The NPR-A Impact Mitigation Fund, administered by the State of Alaska, exists to mitigate unavoidable adverse impacts from oil and gas development in the NPR-A.

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Williams	Vera	Utqiavik	27403	3	Subsistence Uses and Resources	And, by golly, you know, with the permafrost, if you don't even know, you know, as I talk, people's ice cellars are trying to collapse. People's ice cellars are filling with water. It's just starting to happen more and more, and it's even more evident even today, because it is happening in front of our eyes. Even just a couple, you know, weekends ago, we had to empty our ice cellar. My son was going to go get his muktuk share from the ice cellar and he came and said, Mom, I felt something wet on the bottom while I'm trying to get my muktuk. So before it filled up with water, my brothers went and they emptied the ice cellar and went to go prepare them to put them away. That's what's happening right in front of us right now. Permafrost, the ocean currents, it's eating up our permafrost underneath the -- the sea level. The tide levels are starting to really affect the -- even the ice cellars to the point where they're filling up with water. So those are the things that I see with my naked eye.	Impacts resulting from global climate change are discussed in the affected environments section for each resource.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bean	William	–	27300	1	Subsistence Uses and Resources	As an Iñupiaq, I am deeply concerned by the prospect of more drilling in the Arctic. The Iñupiat and the animals of the Arctic are at the forefront of this man-made climate crisis. We've already seen how the animals react to development in the Arctic and it's devastating impacts on the environment. For a people who must rely on subsistence hunting & fishing to survive, more development would mean less access to clean & healthy food source that have sustained a people for centuries. Maintaining Special Area Protections is the only way for the people, animals, and climate to survive.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.
Neakok	Pearl	–	5723	1	Subsistence Uses and Resources	I noticed our river Kokolik is right on the NPRA grid does that affect our subsistence that we hunt on our river?	Subsistence users have the right of access to everywhere in the NPR-A.

Z.3.43 Suggestion for Specific Change to an Alternative

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	230	Suggestion for specific change to an alternative	The limited measures proposed to protect subsistence also do little to mitigate the substantial impacts likely to occur to subsistence from development. For example, ROP E-1 is focused on requiring roads to be designed to include subsistence pullouts and ramps.1197 BLM does not analyze the effectiveness of this mitigation measure with any level of specificity. To the extent it does discuss this measure, it provides contradictory statements about its potential effectiveness.1198 There have been significant problems to date with tundra access ramps and road pullouts not being designed or sited in a way that allows hunters to cross them. BLM needs to analyze the effectiveness of this mitigation measure to determine if there are additional requirements it can add to ensure this measure is implemented in a meaningful way. There is also nothing in ROP E-1 about guaranteeing community members' access to these roads, despite BLM's acknowledgement in the DEIS that there have been problems with that.	ROP E-1 and subsistence analysis has been updated in the Final IAP/EIS for clarity.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	22	Suggestion for specific change to an alternative	ROP C-1 o Addition of specificity and description regarding protection ofseals around their lairs and breathing holes provides important improvement of protections and should be incorporated into the final selected alternative. o Polar bear protections are more mixed. Under Alternative A, polar bears are not included in the caveat about potential for allowing activities near bear dens if alternative protective measures are approved, while this is relaxed under alternatives B-O. The language from Alternative A should be used to ensure maximum protection of this critical predator. Furthermore, while specificity about activity restrictions around known polar bear dens is improved in the language under alternatives 8-D, the comment about restricting timing of activities to limit disturbance is unclear and additional details are needed to provide guidelines for what timing is acceptable.	ROP C-1 has been updated in the Final IAP/EIS.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	28	Suggestion for specific change to an alternative	ROP E-23 o While it is admirable to have a workshop to inform citing of infrastructure in critical habitat, it is notable what parties are not listed. We ask that the list of groups to be invited to participate in such a workshop be expanded to include academics, conservation organizations, and industry, as well as the entities already listed.	Workshop participants are not limited to the listed entities. Additional entities may be invited at the time a workshop is planned.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	35	Suggestion for specific change to an alternative	ROP K-7 o As is pointed out above, allowing community infrastructure projects in sensitive areas for geese and caribou could have severe negative impacts. The exception for such projects should be removed from this ROP.	Alternative A does not have an exception for community infrastructure. Under Alternatives B through D, any community infrastructure project would be subject to site-specific NEPA analysis. In cases where such a project is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could denied.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	38	Suggestion for specific change to an alternative	ROP K-14 o Under the action alternatives, the northern portion of the Utukok River Uplands Special Area is added to the region where leasing is prohibited to protect WAH calving. This should also be applied to Alternative A and should be included in the final selected alternative. o Reductions in size of the no leasing area in alternatives C and Dis of great concern, including removal of restrictions along the southern NPR-A boundary. Development in this area could hinder caribou access to calving grounds and summer movements and should be prohibited in the final EIS.	Changes cannot be made to Alternative A, as it reflects the current management of the NPR-A. Alternative B considers prohibiting all development in the Utukok River Uplands Special Area and considered for inclusion in the ROD.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	18	Suggestion for specific change to an alternative	ROP A-4 o Reducing potential for spills of hazardous chemicals is important to maintain a healthy environment. Alternatives B-D restrict the focus of this ROP to just "fuel spills," removing mention of "crude oil, and other liquid chemical spills." The action alternatives also contain less detail than Alternative A about requirements for storage containers, liner material, etc. and restrict requirements to only apply to permittees with an oil storage capacity of 1320 gallons or greater. Furthermore, procedures intended to protect the environment during overland moves and seismic exploration are removed from alternatives B-D. Taken together, these various changes reduce the potential for environmental protection. The language from Alternative A should be applied to the final selected alternative.	Requirements listed under Alternative A duplicate exactly the requirement of 40 CFR 112. For purposes of streamlining, the BLM's ROPs list only requirements, in addition to federal, state, and local permitting requirements.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	25	Suggestion for specific change to an alternative	ROP E-6 o Language here was moved from BMP E-14 but was downgraded to requiring only "at least 1" year of hydrologic and fish data, rather than at least 3 under BMP E-14 for Alternative A. The more stringent requirements of Alternative A should be maintained in the selected alternative.	Not all streams require 3 years of sampling prior to construction. Additional years of fish sampling will be required if the presence of anadromous fish is in question.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	27	Suggestion for specific change to an alternative	ROP E-18 o Alternatives B-D restrict the Objective to only apply to eider nests “within the Barrow Triangle area.” No such restriction was present in Alternative A. The final alternative should remove this narrowing of scope. Timing of ground level activity restrictions is shortened under alternatives B-D, with no explanation given for why the end date is moved from August 15 to July 31. Especially in light of a changing climate and extended summer seasons, it is unclear how such a shift would adequately protect eiders. While a statement is added to the action alternatives about applicants being encouraged to work outside the eider nesting window, this does not convey the same level of protection as ground activity restrictions. Language from Alternative A should be maintained in the final selected alternative to avoid a great reduction in protections for nesting eiders.	Steller's eider nests occur in low densities outside of the Barrow Triangle. Extending the requirements for ROP E-18 outside of the Barrow Triangle creates an undue burden on operators, with little benefits to conservation. Any development would be subject to consultation under the Endangered Species Act, and the requirements of ROP E-18 may be extended to specific projects, as warranted. Per the most updated information from the USFWS on eider ducklings, the BLM considers July 31st adequate to protect eider ducklings.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	30	Suggestion for specific change to an alternative	ROP F-3 o The minimum altitude required for aircraft over caribou winter range is increased in alternatives B-D to 1500 feet, compared to 1000 feet in Alternative A. This should be incorporated into the final selected alternative. o The minimum altitude for aircraft is decreased, however, over calving, post-calving and summer ranges from 2000 feet under Alternative A to 1500 feet under alternative B. These are especially sensitive times of the year and the original 2000 foot minimum altitude should be maintained. o Alternatives B-D allow deviations from altitude restrictions for flights that require sight of the ground. In some cases, such as wildlife surveys, this is reasonable and justified, however addition of industry engineering surveys and ice road planning flights to the examples of permissible flights seems to greatly expand the possible range of impacts. Additional details and justifications are needed for what kinds of allowances will be granted and how protections for sensitive species and areas will be maintained. o The DEIS states that “BLM will provide maps and data of the areas listed above” so that key seasonal habitat can be avoided. Additional details need to be provided about how the locations of these areas will be determined, what data will be used, and how maps will be updated from year to year and even within years as species distributions change.	Minimum flight altitudes were changed to be consistent across the NPR-A. Exception to flight altitudes minimums will be considered on a case-by-case basis and impacts on sensitive resources will be evaluated at the time of permitting.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	31	Suggestion for specific change to an alternative	ROP H-5 o The requirement to make summary reports and data from studies on BLM lands publicly available is important to advancing scientific knowledge and public understanding of publicly-owned lands. We appreciate inclusion of this in alternatives 8-0 and ask that this be included in the final selected alternative. o While it is reasonable that exceptions can be granted to public availability of data in the case of sensitive data, we ask that the language of the ROP be updated to state that if such exceptions are granted it should be made clear to the public what data are being withheld, what justification is given for data being withheld, and what the process is for appeal or request for reasonable use of restricted data. This will strike and appropriate balance between protecting sensitive information and enabling inquiry.	ROP H-5 has been updated in the Final IAP/EIS.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	33	Suggestion for specific change to an alternative	ROP K-3 o Protections for waterbodies and riparian areas in alternatives Band C should also be applied to alternatives A and D to reduce the likelihood of negative environmental impacts in sensitive areas.	Changes cannot be made to Alternative A; it is the current management of the NPR-A. Stipulation K-3 was updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	37	Suggestion for specific change to an alternative	ROP K-9 o As we point out above, there are grave concerns about the effectiveness ofthe protections for alternatives C and D. These alternatives are likely insufficient to avoid negative effects for the Teshekpuk Caribou Herd. There are also some concerns for Alternative B, especially with regards to allowing community transportation infrastructure in sensitive areas, permitting pipeline corridors through otherwise closed areas, and the effects of the most recent lease sale on efficacy of protections. o As noted under ROP E-23, we ask that the list of groups to be invited to participate in a workshop to identify the best corridor for potential pipeline construction be expanded to include academics, conservation organizations, and industry.	Workshop participants are not limited to the listed entities. Additional entities may be invited at the time a workshop is planned.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	15	Suggestion for specific change to an alternative	The lack of protection stated in the DEIS could negatively impact the Qupatuk East Asian-Australasian Flyway Network Site. The Qupatuk site, located northeast of Teshekpuk Lake, is a part of the East Asian-Australasian Flyway Network Partnership system. This internationally recognized site is important, featuring a significant proportion of the breeding population of Dunlin (Calidris alpina arcticola), breeding habitat for approximately 30,000 migratory waterbirds, and habitat for threatened Stelle r's Eider (Polysticta stelleri) and Spectacled Eider (Somateria fischeri) . Surface development here will threaten the integrity of this site. We request that the EIS protect the Qupatuk East Asian-Australasian Flyway Network Site in all action alternatives.	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. The BLM cannot legally exclude consideration of development north of Teshekpuk Lake from the range of alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	17	Suggestion for specific change to an alternative	The exemption for allowing community infrastructure development in all action alternatives in the DEIS could negatively impact shorebirds. For example, a new road from Nuiqsut to Utqiagvik will increase human access and potentially increase disturbance to nesting shorebirds and other bird species there. Roads, pipelines, and powerlines may increase shorebird predator presence. Additionally, the installation of elevated power lines may cause an increased strike hazard for birds during low visibility. We request the EIS not allow any potential new roads to be routed north of Teshekpuk Lake in any alternative.	The BLM is considering an Alternative A that does not allow community infrastructure north of the lake and could adopt it in a ROD. Under Alternatives B through D, any community infrastructure project would be subject to site-specific NEPA analysis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	24	Suggestion for specific change to an alternative	ROP C-4 o Mention of invertebrates is removed from alternatives B-O and prohibitions on travel are reduced to only “primary” ice roads and snow trails. No explanation is given for these changes, nor does the IAP define what qualifies as primary roads and trails. These reductions in protections could have negative environmental impacts. The language from Alternative A should be applied to the final selected alternative.	ROP C-4 has been updated in the Final IAP/EIS.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	26	Suggestion for specific change to an alternative	ROP E-10 o Alternatives B-O strengthen requirements to minimize bird collisions. These protections should be included in the selected alternative.	ROP E-10 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	29	Suggestion for specific change to an alternative	ROP F-2 o Requirement b states that during design, larger landing strips should be considered to allow the use of larger aircraft. Under BMP F-1 for Alternative A it is explicitly stated that this is to result in fewer flights to the facility. Before such a decision is made, the IAP should specify that a cost benefit analysis be conducted that contrasts estimated flight numbers and frequency with the acres affected based on different runway length options. This should be used to inform the decision of whether a larger airstrip that can accommodate larger aircraft will reduce or increase net impacts to the environment. o In the final EIS, we ask that a requirement be added to this ROP that lessees and others operating aircraft within the NPR-A provide flight line shapefiles and associated metadata, including aircraft type, timing of flight, altitude, etc. to BLM. These data should be made available to researchers upon reasonable request. Such data will enable monitoring and studies of aircraft impact. They can also be used to validate other data sources, such as sound recording data (e.g., Stinchcomb 2017).	At the project permitting phase, the BLM is required to consider reasonable alternatives to a proposed action; consideration of an alternative, including a shorter runway, could be a part of the NEPA analysis for the proposed project. Reporting requirements for aircraft data can be found under ROP F-2 in the Draft IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	32	Suggestion for specific change to an alternative	ROP M-1 o Language is strengthened here under alternatives B-D and should be incorporated into the selected alternative. o There is an opportunity to provide critical data that can inform studies of road impacts on caribou. We ask that the ROP be updated so that monitoring is required, not optional as in M-le, and that monitoring include records of traffic numbers on road segments to enable better studies of road and vehicle activity impacts on caribou and other species. Previous work has shown that traffic level affects the impacts of roads on species such as caribou (e.g., Leblond et al. 2013). It is rare that such data are collected in a proactive manner. The revised IAP provides an excellent opportunity to collect such information and enable studies.	Monitoring plans, if required, would be designed at the project permitting level to ensure that the appropriate data is being collected, based on the project proposal.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	34	Suggestion for specific change to an alternative	ROP K-5 o Language under Alternative B prohibits leasing within 1 mile ofthe coast and extends the buffer around walrus areas. These protections will play an important role for protecting species and habitat for caribou relief, shorebirds, and other species and should be extended to apply to all alternatives and be included in the final selected alternative.	It is not necessary to prohibit leasing to protect surface resources within 1 mile of the coast. Under all alternatives, infrastructure that does not necessarily need to be within 1 mile of the coast is prohibited within the coastal setback.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	36	Suggestion for specific change to an alternative	ROP K-8 o The stipulations for Alternative B that prevent new infrastructure should also be applied to Alternative A. This will not only protect brant habitat, but also will provide protections for caribou during various seasons.	Stipulation K-8 has been updated in the Final IAP/EIS.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	16	Suggestion for specific change to an alternative	The Teshekpuk Lake Special Area was expanded in 2013 to protect shorebird habitat while continuing to protect waterbird habitat. The move of the Teshekpuk Lake Special Area southern boundary to the north, as described in alternatives B-D, will fail to maintain protection of this habitat for ducks, geese, swans, and shorebirds. Additionally, the existence of new pipelines within the Teshekpuk Lake Special Area will increase the impact predators have on shorebirds and other nesting species, as noted above. Pipelines will provide increased perching and nesting/denning habitat for predators. We request the EIS maintain the Teshekpuk Lake Special Area southern boundary in all action alternatives.	Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development. The current boundary of the Teshekpuk Lake Special Area in the action alternatives was drawn on the best available information of caribou and bird species distribution. The special area boundary encompasses the geographic extent of the special management in place to protect sensitive species. The southern portion of the Teshekpuk Lake Special Area under Alternative A does not include any special management prescriptions to protect sensitive resources. Therefore the special area boundary was adjusted to reflect this.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	19	Suggestion for specific change to an alternative	ROP A-5 o This ROP is intended to minimize impacts of refueling on the environment. While Alternative A prohibits refueling and storage of fuel within 500 feet of the active floodplain of waterbodies, alternatives B-D relax this distance to 100 feet. This reduction in protections is not justified. BLM should maintain the language from Alternative A no matter which alternative is ultimately selected.	Due to the topography of the NPR-A it is not possible to require refueling to be at least 500 feet from a waterbody. The BLM has had to issue a waiver to this requirement for every permanent development in the NPR-A. This ROP was adjusted to make it achievable.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	20	Suggestion for specific change to an alternative	ROP A-8 o This ROP serves an important role in minimizing human-wildlife conflict with respect to predators. The language under alternatives B-O strengthens and broadens protections to include more species and provide greater specifics. These additions are important and this language should be adopted regardless of the alternative selected.	ROP A-8 has been updated in the Final IAP/EIS.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	21	Suggestion for specific change to an alternative	ROP B-2 o Language under alternatives B-D appears to strengthen protection for fish and other aquatic species and should be applied to the selected alternative.	ROP B-2 has been updated, based on public comments. The BLM may consider supplemental ROPs that are more restrictive for specific locations if baseline conditions change for sensitive fish species between issuance of this plan and a project proposal.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	23	Suggestion for specific change to an alternative	ROP C-2 o The language under alternatives B-O provides important increased environmental protections for winter tundra travel. Specifically, the switch from date-based limits on operations to condition based limits is an important way to deal with the variability imposed by climate change on the Arctic. In addition, the increased lag time from 1 to 2 years between ice roads being allowed to overlap should help reduce impacts to sensitive tundra vegetation and habitats. These protections and other language should be incorporated into the final ROP, regardless of the alternative selected. o We were pleased to see the provision that lessees provide BLM with as-built shapefiles of ice roads, snow trails and ice pads. Temporary winter infrastructure has been difficult to record and analyze in the past but is important for determining the full scope of potential impacts from oil and gas activities. We ask that this provision be maintained in the selected alternative and that the ROP be updated to specify that these data will be made available to researchers upon reasonable request. This will help ensure that the scientific community can access the information needed to evaluate potential impacts on public lands and will avoid unnecessary restriction of data.	ROP C-2 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	39	Suggestion for specific change to an alternative	ROP K-16 o In principle this deferral of leasing around Nuiqsut is admirable, however, the observation that nearly the entire deferred area is already leased makes the protections conveyed by this ROP negligible. The EIS should have a more complete discussion of what protections would actually be provided given the current state of leases in the area.	Stipulation K-16 has been updated in the Final IAP/EIS. Lease deferral areas were redrawn, based on community input around currently unleased areas.
Bruno	Jeff	State of Alaska	29317	8	Suggestion for specific change to an alternative	Page #: 2-11 Table or figure: A-14, vehicle idling standards Reviewer Name/Agency: Comment: Considering the extreme temperatures this area experiences and the justification for leaving vehicles idling did BLM consult with anyone to assure that plugging trucks in and limiting the ability to idle was a practical alternative (mechanically) and what additional risks this ROP may increase? Considering this is a new stipulation from the 2013 IAP. Was there an analysis/report related to NPR-A (or North Slope) that identified the impact from idling vehicles as an impact that needed to be mitigated? Suggestion if applicable: Remove ROP if plugging vehicles in vehicles as oppose to leaving them idling is not a practical alternative. Should also be removed if it is an impact that has be identified. Stipulations of this nature can be made by BLM through the permitting process when alternative analysis can be done	ROP A-14 was updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	10	Suggestion for specific change to an alternative	Page #: 2-11 Table or figure: ROP/BMP B-1 & 2 Water Use for permitted activities Reviewer Name/Agency: ADNR Comment: Requirements to protect and mitigate these resources are included in State of Alaska permits/authority with both ADNR and ADF&G (i.e. temporary water use authorizations (TWUA), water rights). Please explain what analysis BLM has done or what impact(s) have been identified to lead BLM to include these ROP's which duplicate and have the potential to contradict State of Alaska authority. We encourage BLM to discuss any concerns they have about this process with the appropriate State agencies rather than creating unnecessary, duplicative, and additional requirements that may or may not be in alignment with the permitting agencies. Suggestion if applicable: This ROP does not mitigate any impacts identified in the EIS. Strongly suggest removing these ROPs and defer to the appropriate State of Alaska permitting authorities.	ROPs B-1 and B-2 were updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	14	Suggestion for specific change to an alternative	Page #: 2-26 Table or figure: K-9 (e) Restriction of “major construction activities from May 20 - August 20 Reviewer Name/Agency: ADNR Comment: This ROP needs to be reworded to assure that there is a clear understanding of what it entails and how it will be implemented. This ROP is too broad and the term “major construction activity” is overly subjective. Without a full understanding of what activities this ROP may preclude or delay a future operator from performing you cannot assure that this ROP won't cause unnecessary risk. Considering there will be “major construction activities” (as described) through several phases of this project this ROP has the potential to prevent critical activities needed to safely operate future facilities. This requirement depending on how it is interpreted could potentially cause unnecessary risk to production facilities, unnecessary shutdowns, and could unnecessarily preclude critical maintenance, monitoring, and/or operational activities if they are perceived or overlap with “major construction activities”. Additionally, there are several ROP's (i.e. M-1 vehicle use plan, E-23, Infrastructure near Teshekpuk Lake, etc.) which mitigate how existing infrastructure will be used to mitigate impacts. Suggestion if applicable: Suggest limiting this restriction to activities like “laying of gravel” or “increasing footprint”.	ROP E-23 and Stipulation K-9 were updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	14 *(cont.)*	*(see above)*	How existing infrastructure, and use of that infrastructure, mitigates impacts to these resources is covered in a variety of other ROP's.	*(see above)*
Bruno	Jeff	State of Alaska	29317	61	Suggestion for specific change to an alternative	Page #: 2-8 Table or figure: Table 2-2 Reviewer Name/Agency: ADEC Comment: BMP A-2 requires disposal via an NPDES permit. It should be noted that Alaska received authority in 2012 to issue permits under the Alaska Pollutant Discharge Elimination System (APDES) program. Suggestion if applicable: Change the reference to read APDES permit.	BMP A-2 reflects the verbiage in the current management plan. There is no mention of NPDES in ROP A-2.
Bruno	Jeff	State of Alaska	29317	5	Suggestion for specific change to an alternative	Page #: 2-11 Table or figure: A-13 Firefighting foam standards Reviewer Name/Agency: Comment: While this comment is somewhat semantics it is important distinction for how this ROP needs to worded. State and Federal agencies in general “approve” plans of this nature. The “requirement” is that applicants have an approved plan(s) and design their system to the specifications in the plan. Suggestion if applicable: “At facilities where fire-fighting foam is required, use fluorine-free foam unless approved by a State or federally required plan. If aqueous film-forming foam use is required, contain, collect, treat, and properly dispose of all runoff, wastewater from training events, and, to the greatest extend possible, from any emergency response events. All discharges must be reported to	The change was made to the IAP/EIS, as stated.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	the ADEC. Measures should also be taken to fully inform workers/trainees of the potential health risks of fluorinated foams and to specify appropriate personal protective equipment to limit exposure during training and use. Training events shall be conducted in lined areas or basins to prevent the release of poly- and perfluoroalkyl substances associated with aqueous film-forming foam."	*(see above)*
Bruno	Jeff	State of Alaska	29317	29	Suggestion for specific change to an alternative	Page #: 2-25 Table or figure: ROP M-4 Reviewer Name/Agency: ADF&G Comment: This requirement states its objective as: "Minimize loss of individuals … for wildlife species designated as sensitive by BLM in Alaska." ADF&G is responsible for wildlife management; please incorporate ADF&G's consultation and management role into this requirement.	The objective was changed to "minimize loss of habitat for wildlife species designated as sensitive by the BLM in Alaska,"

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	33	Suggestion for specific change to an alternative	Page #: 2-35 Table or figure: K-9 Teshekpuk Caribou Herd Habitat Area Reviewer Name/Agency: ADF&G Comment: Within Alternative B, no new infrastructure is authorized except for linear features within the identified corridor and features within the corridor must follow the ROP identified in K-8. The linear features authorized within the corridor are pipelines only (Map 2-11); the ROP in K-8 (M-1) discusses a vehicle use plan that would imply roads are authorized. The appropriate ROP needs to be identified or the Alternative modified.	This standard will still apply to valid existing rights (i.e., leases that have been sold under previous IAPs). A vehicle use plan will be required upon development of any leases in this area. Additionally, under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. Any community infrastructure would have to comply with Stipulation K-9.
Bruno	Jeff	State of Alaska	29317	34	Suggestion for specific change to an alternative	Page #: 2-35 Table or figure: K-9 Teshekpuk Caribou Herd Habitat Area Reviewer Name/Agency: ADF&G Comment: Alternative B of K-9, Teshekpuk Caribou Herd Habitat Area states there is no leasing, no new infrastructure, and sand and gravel mining on a case-by-case basis. It further identifies Requirement/Standards that discuss permitted oil and gas activities within this area under Alternative B. However, Alternative B states no leasing and no new infrastructure in this area that would preclude the activities listed in the Requirement/Standard. It appears the Requirement/Standard should be placed under Alternative C or D where leasing is authorized in parts of the Habitat Area and activities are permitted under Controlled Surface Use/Timing Limitations.	This standard will still apply to valid existing rights (i.e., leases that have been sold under previous IAPs). A vehicle use plan will be required upon development of any leases in this area. Additionally, under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. Any community infrastructure would have to comply with Stipulation K-9.

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Bruno	Jeff	State of Alaska	29317	58	Suggestion for specific change to an alternative	Page #: 2-23 Table or figure: ROP H-3 Reviewer Name/Agency: ANILCA Comment: Objective states: Minimize impacts on hunting, trapping, and fishing species and to subsistence harvest of those animals consistent with requirements of the Alaska National Interest Lands Conservation Act. However, the requirements listed are not ANILCA related. Suggestion if applicable: Please revise as follows: Minimize impacts on hunting, trapping, and fishing species and to subsistence harvest of those animals by permittees' staff.	The BLM's authority to impose this ROP stems in part from ANILCA Title VIII. No change was made to H-3.

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Bruno	Jeff	State of Alaska	29317	89	Suggestion for specific change to an alternative	Page #: 2-11 Table or figure: A-14, vehicle idling standards Reviewer Name/Agency: Comment: Considering the extreme temperatures this area experiences and the justification for leaving vehicles idling did BLM consult with anyone to assure that plugging trucks in and limiting the ability to idle was a practical alternative (mechanically) and what additional risks this ROP may increase? Considering this is a new stipulation from the 2013 IAP. Was there an analysis/report related to NPR-A (or North Slope) that identified the impact from idling vehicles as an impact that needed to be mitigated? Suggestion if applicable: Remove ROP if plugging vehicles in vehicles as oppose to leaving them idling is not a practical alternative. Should also be removed if it is an impact that has be identified. Stipulations of this nature can be made by BLM through the permitting process when alternative analysis can be done	ROP A-14 was updated in the Final IAP/EIS.

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Bruno	Jeff	State of Alaska	29317	11	Suggestion for specific change to an alternative	Page #: 2-12 Table or figure: Table 2-2 Row 1 Reviewer Name/Agency: ADNR Comment: ROP B 2. This ROP uses the term “resistant fish” which is undefined in the EIS. Please use the term non-sensitive fish, defined as ninespine stickleback and Alaska blackfish, instead of the term resistant fish species in item d under Winter Water Use if appropriate or define resistant fish species if these differ from non-sensitive fish. Difficult to interpret as presented. Suggestion if applicable: Please replace “resistant fish” in ROP B-2 with “non-sensitive fish”.	The Final IAP/EIS was updated.
Bruno	Jeff	State of Alaska	29317	30	Suggestion for specific change to an alternative	Page #: 2-32 Table or figure: Table 2-3, K-6 Goose Molting Area Reviewer Name/Agency: ADF&G Comment: Alternative B of K-6, Goose Molting Area states there is no leasing, no new infrastructure, and sand and gravel mining on a case-by-case basis. It further identifies Requirement/Standards that discuss permitted oil and gas activities within this area under Alternative B. However, Alternative B states no leasing and no new infrastructure in this area that would preclude the activities listed in the Requirement/Standard. It appears the Requirement/Standard should be placed under Alternative D where leasing is authorized, and activities are permitted under Controlled Surface Use/Timing Limitations.	This standard will still apply to valid existing rights (i.e., leases that have been sold under previous IAPs). In order to eliminate confusion, this standard is stated only once. Additionally, under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. Any community infrastructure would have to comply with Stipulation K-6.

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Bruno	Jeff	State of Alaska	29317	12	Suggestion for specific change to an alternative	Page #: 2-13, 2-14 Table or figure: C-2 Winter Tundra Travel C-3 Ice Bridges Reviewer Name/Agency: ADNR Comment: This kind of prescriptive planning is premature at this time and activities and mitigations (i.e. permit stipulations/conditions) should be done at the time of permitting and in consultation with the appropriate agencies. It is important that the standards included in this ROP be consistent regardless of whether this type of activity is on State or Federal land. The current way these ROP's are written is too prescriptive at the planning level. Inclusion of these types of ROP's for programs that are well established on the slope are unnecessary and problematic especially if standards/practices/environment change. Using static and prescriptive ROP's at the time of planning to mitigate dynamic resources in a dynamic environment is inappropriate and lacks the flexibility needed to manage resources of this nature. Usurping permitting authority at the planning level can cause a process that is incapable of responding to new information, new technology, and changing conditions/environments. Suggestion if applicable: The goal of these ROP's should focus on being consistent with the State of Alaska and to use best available/practical practices and information. These ROP's are problematic in that they have the	ROP C-2 has been updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	12 *(cont.)*	*(see above)*	ability to contradict State and Borough authorizations/permit conditions and are static measures (ROP's) meant to manage dynamic resources and environments. BLM has the ability to mitigate activities of this nature at the time of permitting in consultation. BLM plans should avoid such restrictive permitting conditions for activities that may need flexibility on how to manage in the future. Strongly suggest simplifying this ROP to assure that permitting conditions and standards will be done in close consultation with the State of Alaska. When these activities arise BLM will have several opportunities to include additional stipulations at the time permitting and alternative analysis, if needed.	*(see above)*
Bruno	Jeff	State of Alaska	29317	28	Suggestion for specific change to an alternative	Page #: 2-25 Table or figure: ROP M-1e Reviewer Name/Agency: ADF&G Comment: Requiring monitoring will provide a unique opportunity as the Willow and other developments move forward in terms of evaluating new roads in situations where we have a long history of pre-development data. We, as scientific agencies, do not want to be in the position 10 years from now, wishing that we had better data on traffic levels in relation to the things that we are observing. If improved mitigation is a primary goal of studies, understanding traffic levels seems like an obvious metric we will want to capture. Many of the studies that have occurred in the Kuparuk	ROP M-1 part (c) requires the permittee to submit a summary of future planned off-road travel not a report of travel, which is already conducted. ROP M-1 part (e) deals with a potential monitoring program, which would be defined at the project permitting phase.

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(see above)	*(see above)*	*(see above)*	*(see above)*	28 *(cont.)*	*(see above)*	oil fields to date may not carry over as well as we might hope, west of the Colville River. Both avian and terrestrial mammal studies in the Kuparuk area were generally conducted in circumstances where hunting was not allowed, and off-road traffic was highly restricted; the situation west of the Colville River currently appears as though it will be much different. In-so-far as we typically think of the Prudhoe Bay area infrastructure being inherently different from the Kuparuk area because the latter developments were constructed specifically with caribou passage in mind, the circumstances west of the Colville River are likely to present yet another paradigm. ADF&G has an interest in providing predictable and ample access to wildlife. Understanding the cost-benefit relationship regarding new roads and changing access to caribou will presumably be an important aspect of understanding the effects of new developments west of the Colville. Continued monitoring of subsistence harvest will be a necessary component of monitoring studies, both locally, and in areas that could be influenced by changes in movement patterns. To the extent that new developments will be conducted under a different paradigm with respect to hunting, and in novel situations, studies should be conducted to evaluate those effects to enable adaptive planning with respect to road	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	28 *(cont.)*	*(see above)*	siting, orientation, and traffic management on future roads. Suggestion if applicable: Rather than stating monitoring may be required as part of the vehicle use plan, we recommend "new roads will have monitoring for 3-5 years."	*(see above)*
Bruno	Jeff	State of Alaska	29317	57	Suggestion for specific change to an alternative	Page #: 2-22 Table or figure: ROP H. Reviewer Name/Agency: ANILCA Comment: H. Lists the title as "Subsistence Consultation for Permitted Activities", the actual intent of the requirements appears to be more accurately described as Minimizing Subsistence Impacts by Permitted Activities. Suggestion if applicable: Change title to: H. Minimizing Subsistence Impacts by Permitted Activities	The BLM changed the title of ROP H to "Minimize Subsistence Impacts from Permitted Activities.
McGuire	Rebecca	Alaska Shorebird Group	27169	21	Suggestion for specific change to an alternative	We recommend using Alternative B with the following modifications/additions: 1. Do not allow unlimited community development within designated Special Areas, especially structures such as pipelines, electrical corridors, and roads that will have wide impacts on wildlife and their habitats. (We do not object to continuing to allow construction of small cabins on inholdings.) 2. Retain the cross-hatched core area that prohibits surface development north of Teshekpuk Lake.70 This is the most important wildlife area within the entire NPR-A and as such should be protected above all else. Any road connecting Nuiqsut and Utqiagvik should be south of Teshekpuk Lake, and any pipeline connecting offshore developments	The Final IAP/EIS includes an analysis of a preferred alternative.

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(see above)	*(see above)*	*(see above)*	*(see above)*	21 *(cont.)*	*(see above)*	at Smith and Harrison bays should be west and east of this core no-surface-development area. 70 2013 NPR-A, IAP, Record of Decision, Chapter 1, Figure 1, p. 3. 3. Maintain Special Use Areas and their purposes as designated in the 2013 Record of Decision, and prevent any surface alteration of the Qupaluk East Asian-Australasian Flyway Network site - one of only two such sites in the entire United States. 4. Do not alter the existing southern boundary of the Teshekpuk Lake Special Area. Habitats in the southern area of the 2013 version of the Teshekpuk Lake Special Area support wildlife resources deemed important in the past IAP. 5. Recommend all 12 suitable rivers in the NPR-A for Wild and Scenic River Designation. 6. Table 2-2 provides lease stipulations, required operating procedures and lease notices under Alternative A and Alternatives B, C, and D.71 A comparison of these alternatives indicate some strengthening of environmental regulations and in other cases substantial weakening. We recommend to always error on the side of stronger environmental regulations to allow responsible oil and gas development in a way that has the least damage to the wildlife resources and their habitats. Perhaps most important is re-defining NSO to exclude all surface-disturbing activities, including community	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	21 *(cont.)*	*(see above)*	infrastructure. 71 NPR-A, DIAP/EIS. p. 2-8 to 2-41.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	32	Suggestion for specific change to an alternative	BLM is fully capable of and should identify specific conditions for waivers, modifications, and exceptions for lease stipulations.	Chapter 2 has been updated in the Final IAP/EIS with a more thorough description of the process for granting waivers, exceptions, and modifications.
Donahey	Leah	Alaska Wilderness League	29320	33	Suggestion for specific change to an alternative	BLM should also set out narrowly prescribed waivers, exceptions and modifications to lease stipulations that are based on very specific criteria; having no sideboards, as the draft EIS currently lacks, is not acceptable. Additional conditions governing waivers, exceptions, and modifications that we propose include: -BLM should define what it means by "one-time" exception, i.e., one time per permit application for a project (such as refueling near a waterbody once during construction) or one time for the life of a project (such as an "exception" to putting a pipeline in setback). Overall, BLM needs to dramatically narrow what it means by this to ensure any exceptions do not swallow the rule and become the norm. -As noted above, there should not be a blanket provision allowing waivers, exceptions, and modifications to no surface occupancy (NSO) provisions. In the limited circumstances where they might be allowed, they should only be granted after a 30-day public notice and comment period. -The U.S. Fish and Wildlife Service and National Marine Fisheries Service, if applicable, should have the	Operators are required to submit a written request for an exception, waiver, or modification and information demonstrating that (1) the factors leading to the inclusion of the stipulation in the lease have changed sufficiently to make the protection provided by the lease stipulation no longer needed or (2) the proposed operation would not cause unacceptable impacts. The criteria for approval of exceptions, waivers, and modifications should be supported by NEPA analysis and may require site-specific environmental review. Requests should contain, at a minimum, a plan that includes related on-site or off-site mitigation efforts to adequately protect affected resources; data collection and monitoring efforts; and time frames for initiation and completion of construction, drilling, and completion operations. The operator's request may be included in an application for permit to drill, notice of staking, sundry notice, or letter. The BLM may also proactively initiate the process. During the review process, the BLM coordination with other local, state, or federal agencies (e.g., ADF&G, NSB, and local governments) should be undertaken, as appropriate, and documented. The BLM will also

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(see above)	*(see above)*	*(see above)*	*(see above)*	33 *(cont.)*	*(see above)*	opportunity to submit information for consideration prior to granting waivers, exceptions, or modifications to address its expertise, surface management obligations, and potential impacts on any listed species.	consult with the federal surface management agency (e.g., USFWS). Approval or disapproval is made by the BLM Authorized Officer, and the decision is documented. If the waiver, exception, or modification is approved, any necessary mitigation is also documented. The applicant is then provided with a written notification of the decision. See Instruction Memorandum 2008-032 and 43 CFR 3101.1-4 for additional details.
Donahey	Leah	Alaska Wilderness League	29320	34	Suggestion for specific change to an alternative	The draft EIS also relies on ROPs, which apply to both oil and gas activities and non-oil and gas activities, to protect the resources of the Reserve. The ROPs lay out requirements that apply to a variety of resources, taking the place of BLM's earlier Best Management Practices. Based on the language in the draft EIS, it does not appear that they are subject to waivers, exceptions and modifications (while it is clear that stipulations are). BLM should clarify this and expressly state that no waivers, exceptions, or modifications will be allowed for ROPs.	Chapter 2 was updated to include a description of the waiver process for ROPs.

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Donahey	Leah	Alaska Wilderness League	29320	105	Suggestion for specific change to an alternative	BLM is proposing various ROPs for the action alternatives, using existing BMPs as a starting point, but then altering them in significant ways. The revised measures, set out as proposed ROPs, are less protective than current BMPs, and are insufficient to mitigate impacts or protect resources. BLM should propose more protective ROPs, not less. In numerous places, BLM weakens required operating procedures. For example, ROP A-3 is a much weaker version of BMP A-3;687 and ROP A-4 is a much weaker version of BMP A-4.688 The conditions and stipulations of the original BMPs must be maintained. Relatedly, all ROPs pertaining to oil spill prevention and response must not be waivable and should mandatory under all circumstances. BMP A-4 is far more protective of the environment than ROP A-4 from "fuel, crude oil, and other liquid chemical spills." ROP A-4 only focuses on fuel spills. Additionally, while both require compliance with 40 C.F.R. 112, BMP A-4 contains a number of specific details that should be considered when developing the required spill prevention, control, and countermeasure plan. The language in BMP A-4 should be retained. -------- 687 1 DEIS at 2-8. 688 1 DEIS at 2-9. -------- BMP A-5 is far more protective of the environment than ROP A-5. BMP A-5 prohibits "Refueling of equipment within 500 feet of the	All ROPs (A-3, A-4, A-7, and E-4) that are duplicative of existing state and federal regulations were dropped as BLM requirements. Although this requirement is no longer a part of a BLM ROP, it is still required under federal and state law. Due to the topography of the NPR-A it is not possible to require refueling to be at least 500 feet from a waterbody. The BLM has had to issue a waiver to this requirement for every permanent development in the NPR-A. This ROP was adjusted to make it achievable. ROP E-5, part (e), has been deleted as a it is technically infeasible. Part (g) has been updated to clarify how important areas would be identified. This change will not affect the practical implementation of this ROP. The change was made at the request of the cooperating agencies. The need of the local community to use industrial infrastructure is a legitimate public purpose. ROPs apply to all activities, including non-oil and gas activities, whereas stipulations apply only to oil and gas activities.

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(see above)	*(see above)*	*(see above)*	*(see above)*	105 *(cont.)*	*(see above)*	active floodplain of any water body is prohibited," whereas the distance for ROP A-5 is only 100 feet. As a result, it is far more likely for a large fuel spill to reach a water body under ROP A-5. BMP A-5 already allowed appropriate exceptions to its requirements so the base requirement should not be altered under any IAP revision. BMP A-7 is more protective of the environment than ROP B-7. BMP A-7 states that "Discharge of produced water in upland areas and marine waters is prohibited" and there is no similar requirement under ROP B-7. The language of BMP A-7 should be retained to ensure this requirement stays in plays in the Reserve. BMP E-4 is far more protective of the environment than ROP E-4 (note that the ROP number is missing in the DEIS). BMP E-4, which covers pipelines, states that "All pipelines . . . shall be constructed to accommodate the best available technology for detecting and preventing corrosion or mechanical defects during routine structural integrity inspections," which covers accommodation for smart "pigs" to detect pipeline anomalies. The state pipeline regulations cited in ROP E-4 do not include requirements for "routine structural integrity inspections" using smart pigs. The entire language of BMP E-4 should be retained, as it is valuable to prevent pipeline releases, in addition to the state	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	105 *(cont.)*	*(see above)*	regulations for pipelines that apply. ROP E-5 needs greater clarity. Within the DEIS BLM writes: “under all action alternatives, ROP E-5 would include a requirement that impermeable liners be used under gravel to further mitigate contaminant spills and that they be located outside areas important for habitat, subsistence use, and recreation.”689 How and specifically where BLM will determine what is “important for habitat, subsistence use, and recreation” should be clearly articulated. --------- 689 1 DEIS at 3-72. --------- Moreover, any changes to the BMP E-4 need to include state of the art leak detection for all pipelines that exceeds the state's leak detection requirement in 18 AAC 75.055 for crude oil pipelines. In addition to a stricter leak detection requirement for crude oil pipelines (e.g., redundant leak detection and a lower threshold for detection), the state has no leak detection requirements for non-crude oil pipelines. Additionally, BLM should include a ROP that requires staging of emergency response equipment at key locations within the NPR-A to allow responders to rapidly address oil pipeline spills, including for pipelines that do not have roads that parallel them. BLM also changed Lease Stipulation G-1 from “The BLM may grant exceptions to satisfy stated environmental or public	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	105 *(cont.)*	*(see above)*	purposes" to ROP G-1, which states "The BLM may grant exceptions to satisfy stated environmental purposes or community needs." BLM should not grant exceptions to its already weak and vague reclamation requirements. At a minimum, BLM should provide much clearer parameters about the limited circumstances in which it would grant an exception, if any, to these requirements. BLM should also provide more in-depth requirements about the standards for reclamation that are required to be met for any projects. As written, the standard is too vague and BLM does not recognize or address the substantial problems and uncertainty related to the effectiveness of reclamation on the North Slope. It is also unclear why BLM changed this reclamation provision from being a lease stipulation to a required operating procedure. Binding reclamation requirements should be included in the terms of any lease issued in the Reserve.	*(see above)*

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Donahey	Leah	Alaska Wilderness League	29320	112	Suggestion for specific change to an alternative	Beyond the Fish Creek setback, BLM has failed to consider meaningful mitigation measures to address the serious impacts of gravel mining in the Reserve. ROP E-8 does not contain adequate measures to minimize the environmental impacts of sand and gravel mining. ROP E-8 contains only a vague reference to the fact that a reclamation plan will be developed at some point in time. BLM should include specific parameters related to reclamation to ensure that it actually occurs and is done in an appropriate way.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

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Donahey	Leah	Alaska Wilderness League	29320	138	Suggestion for specific change to an alternative	The DEIS does not do a thorough job of analyzing the differences in impacts between the alternatives. Alternative B is described as having more acres as closed to leasing.804 But part of the area described as unavailable for leasing under Alternative B is actually already leased. Therefore, a more accurate metric would present the acreage that would be both closed to leasing and currently unleased under the alternatives, for a truer representation of the acreage that would be effectively protected from development. Moreover, it is not simply the amount of acreage made available for leasing that is important to consider; the DEIS must also consider which parts of the NPR-A are available for leasing, and what values would therefore be at risk. The agency should present this information in the final EIS, correct its analysis that relied on these misleading acreage comparisons, and conduct a comparative analysis of the types of habitats and other values that would be most impacted under each alternative. -------- 804 See, e.g., 2 DEIS at B-11 (tbl.B-1).	The BLM has adjusted the impact analysis methodology to account for areas that were leased between the issuance of the Draft and the Final IAP/EIS.

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Donahey	Leah	Alaska Wilderness League	29320	171	Suggestion for specific change to an alternative	ROP K-9 This ROP is intended to minimize disturbance of caribou and alteration of movements in the Teshekpuk Caribou Herd Habitat Area. Under the action alternatives, it changes the shape of the Teshekpuk Lake Special Area and allows for a pipeline corridor to the east (alternatives B and C) and west (Alternative B only) of Teshekpuk Lake. As is stated above, these differences may have negative consequences for caribou and are not adequately evaluated in the DEIS.	Pipeline corridors under all action alternatives are necessary to provide access to state and federal offshore leases. Alternative A considers prohibiting pipelines in the core Teshekpuk Lake Special Area and could be adopted in a ROD. Any analysis that considers a pipeline route will consider mitigation measures to minimize impacts on wildlife.

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Donahey	Leah	Alaska Wilderness League	29320	215	Suggestion for specific change to an alternative	ROP K-5 provides a one-mile buffer for mariners traveling near walrus haul-outs.1120 1120 ROP K-5(c), 1 DEIS at 2-31. This should be increased to five miles from the known large haul-outs at Point Lay and Cape Lisburne to reflect FWS guidance to mariners to minimize disturbance to walruses, and should the following additional FWS guidance for Chukchi Sea mariners as well: Vessels traveling in a predictable manner appear to be less disturbing to walruses. If you observe walruses in the water, near your vessel, avoid excessive speed or sudden changes in speed or direction. Vessel operators should take every precaution to avoid harassment of walruses when a vessel is operating near these animals. Vessels should reduce speed and maintain a minimum 805-m (0.5-mi) separation distance from the vessel to groups of walruses encountered in the water. Vessels should not be operated in such a way as to separate members of a group of walruses from other members of the group.1121 1121 FWS, Pacific Walrus Use of Coastal Haulouts Along the Chukchi Sea Coast (August 2019).	Alternative B has been updated to include a 5-mile buffer. See Stipulation K-5 (part c).

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Donahey	Leah	Alaska Wilderness League	29320	222	Suggestion for specific change to an alternative	In addition, BMP E-13 requires operators to self-report and suspend operations if paleontological resources are discovered.1153 BLM should be making every effort to ensure that adequate surveys consultation are performed beforehand and BLM does not rely on the operators' response to inadvertent discovery. Also, as described above, operators are not currently required to receive the training to identify cultural sites. This makes self-reporting especially problematic. Further, BLM acknowledges that activities such as unauthorized collection of artifacts and inadvertent disturbance of cultural sites are problems.1154 Allowing the operators to self-police and identify cultural sites, especially without proper training, does not ensure compliance with NHPA Section 106. Further, when a cultural resource is discovered in this manner, it potentially means damage has already occurred to the resources. BLM should not have any mitigation measure that solely relies on the operators to self-report because this does not promote accountability or ensure adequate protection of these resources. 1153 Id. at 2-18. 1154 Id. at 3-225.	ROP I-1 addresses employee training, including the importance of not disturbing cultural sites.

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Donahey	Leah	Alaska Wilderness League	29320	231	Suggestion for specific change to an alternative	Another problem with how similar measures have been implemented to date is that they have not been proposed as part of the initial design that has been considered in-depth in the associated EISs. To date, ConocoPhillips has not provided detailed information up front about how supposed mitigation measures will be incorporated into their project proposals, leaving ConocoPhillips to work out the details at a later point in time and depriving the public of the opportunity to evaluate and comment on those measures. This has been a problem with pullouts as addressed in ROP E-1 and also with other project elements, such as culverts. BLM needs to require this information up front as part of the project design so it can be evaluated as part of any NEPA analysis. This should be incorporated into ROP E-1 and E-6 to ensure this information is considered as part of any NEPA analysis and not addressed at a later point in time, after the public no longer has the opportunity to weigh in on its effectiveness.	The implementation of any specific ROP at the project level would be evaluated during project permitting and is outside the scope of this IAP/EIS.

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Donahey	Leah	Alaska Wilderness League	29320	239	Suggestion for specific change to an alternative	BLM should add or incorporate ROPs that manage specifically for protections of potential WSR designations. For example, subsistence and recreational values are both significantly affected by impacts such as the overflight of airplanes and other signs of industrialization. BLM should add a ROP that accounts for the different ORVs present in different areas that may need more tailored protections.	Under all alternatives, the BLM would manage the existing 12 suitable rivers “to protect their free flow, water quality, and outstandingly remarkable values.”
Donahey	Leah	Alaska Wilderness League	29320	192	Suggestion for specific change to an alternative	ROP C-1(c) also states that operators “seeking to carry out in [sic] onshore activities in known or suspected polar bear denning habitat during the denning season must make efforts to locate polar bear dens within and near areas of operation, utilizing appropriate tools such as infrared imagery and/or polar bear scent-trained dogs.”1034 BLM should require operators to use the best available den detection tools and to avoid disturbance to denning bears and cubs in doing so. The activities, including seismic exploration, may occur offshore/nearshore so the “onshore” limitation should be deleted. Scent trained dogs likely could not be employed instead of tools like infrared imagery because dogs would realistically be able to cover a much smaller geographic area, and are better suited for ground-truthing specific suspected dens identified by other means. Further, the timing of infrared detection efforts is critical for both efficacy and disturbance reasons; FLIR should be	A change was made to require the use of dogs, at the discretion of the USFWS, pursuant to ESA consultation. Restrictions on the timing of activities around polar bear dens would be determined at the project phase, with consultation with the USFWS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	192 *(cont.)*	*(see above)*	conducted from approximately mid-December through late January and will be ineffective and/or cause disturbance to denning bears and cubs outside of that window. Accordingly, this part of ROP C-1(c) should be modified read as follows: Operators seeking to carry out activities in known or suspected polar bear denning habitat during the denning season must make efforts to locate polar bear dens within and near areas of operation, using the best available den detection tools and strategies, including but not limited to infrared imagery and polar bear scent-trained dogs. Infrared imagery must be used between mid- December and late January. All observed or suspected polar bear dens must be reported to the USFWS prior to the initiation of activities. Finally, ROP C-1(c) says to “Restrict the timing of the activity to limit disturbance around dens.” This command is too vague to provide any meaningful parameters and should be expanded.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	220	Suggestion for specific change to an alternative	BLM must develop mitigation measures that preserve and protect current resources and allow identification of unknown resources to ensure their protection. ROP E-13 requires surveys before any ground-disturbing activities and sets a site boundary of 500 feet from any activities. BLM needs to describe the quality and precision of the surveys the agency will require. As the agency notes, very little is known about these areas at this time. This means these surveys must be robust. In addition, it is unclear how the 500 foot boundary was chosen. BLM should incorporate a provision that allows for the boundary to be selected in consultation with the effected group, as an arbitrary 500 foot boundary may not be adequate.1152 Operators should be required to consult with effected groups to better understand how large of a buffer is required to protect resources. 1152 Id. at 3-230.	The 500-foot setback is a minimum and may be increased on a case-by-case basis. ROP E-13 has been updated to outline the process used to design a cultural resource survey.

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Donahey	Leah	Alaska Wilderness League	29320	114	Suggestion for specific change to an alternative	ROP E-8 contains a provision stating that “[a]ny extraction of sand or gravel from an active river or stream channel shall be prohibited unless preceded by a hydrological study that indicates no potential impact on streamflow, fish, turbidity, and the integrity of the river bluffs, if present.” However, as BLM acknowledged elsewhere, any gravel mining in streams is likely to have serious impacts on these characteristics. BLM should consider closing rivers and streams to gravel mining beyond what is closed as part of the Fish Creek setback. Gravel mining in rivers and streams is likely to be extremely destructive, particularly in light of climate change and the other alterations likely to waterbodies from such activities. In particular, BLM should close important subsistence use areas such as areas adjacent to the Colville River and around the community of Nuiqsut to gravel mining. BLM should consider mitigation measures that would prevent large-scale gravel mining from occurring close to communities or in key subsistence use areas, where blasting and other industrial activities can interrupt subsistence activities, cause severe mental distress for community members, and can disturb wildlife and other resources.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

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Donahey	Leah	Alaska Wilderness League	29320	170	Suggestion for specific change to an alternative	ROP C-2 This ROP sets additional standards for winter tundra travel compared to BMP C-2. This is important for protecting caribou habitat both in winter and other seasons from the negative impacts of winter travel. The standards proposed for alternatives B-D add additional conditions that need to be met before ground operations would be allowed and switch from date-based limits on operations to condition-based limits (soil temperature, snow water equivalent depth, etc.). These changes will likely make the ROP more effective in a changing climate. A number of other stronger protections are also added, such as increasing the lag time between reusing ice road routes to two years off between use instead of one. These provisions improve protection and we ask that BLM adopt this ROP in its selected alternative. -------- 940 2 DEIS at E-37. 941 1 DEIS at 3-175. 942 2 DEIS at B-12. 943 1 DEIS at 3-176. 944 2 DEIS at E-35. -------- The ROP also requires that lessees have to provide BLM with as-built shapefiles of ice roads, snow trails and ice pads after infrastructure is completed. This is an excellent addition that will play a critical role in recording the true impact of winter exploration, construction and other activities. It will enable studies of the impacts of such temporary infrastructure on caribou and other species, which is currently a major	ROP C-2 has been updated in the Final IAP/EIS. Language has been added to all ROPs to require all GIS data be submitted within 6 months of construction. ROP E-19 has been updated to include ice infrastructure.

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(see above)	*(see above)*	*(see above)*	*(see above)*	170 *(cont.)*	*(see above)*	gap in knowledge. We requested that BLM require collection of such data in our scoping comments and are grateful to see this included. There are several additions that would strengthen these provisions. First, it would be helpful to provide a timeframe within which these spatial data must be provided (e.g., within 6 months of construction). Second, it should be stated that data will be made available to researchers and management agencies upon request. There have been issues in the past with infrastructure locations being considered proprietary information and their spatial data not being shared. This hinders the ability of scientists to conduct analyses that can help reveal the true impacts (or lack thereof) of human activities on public lands. Third, clarification should be added regarding the metadata that will be required with these spatial data. These should include location, date and time information, when exploration activities and temporary infrastructure are concluded/removed, activity levels of traffic density and other potential disturbances (e.g., timing and location of seismic testing events). This information will enable a wide array of important analyses.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	214	Suggestion for specific change to an alternative	To minimize the potential impacts of aircraft noise to walruses on Round Island, the Alaska Department of Fish and Game has established a 3-mile buffer zone	ROP F-3 has been updated in the Final IAP/EIS. The USFWS recommends that pilots of single engine manned aircraft and

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(see above)	*(see above)*	*(see above)*	*(see above)*	214 *(cont.)*	*(see above)*	around the island, and the FAA has issued advisories requesting that pilots maintain 5000 feet minimum altitude within this zone.1117 The IAP should adopt these more protective measures or explain why they are not necessary or prudent. At minimum, the ROP should be modified to better track the FWS guidance for protecting Pacific walrus, which directs pilots of helicopters and multi-engine aircraft to not fly within one mile of walruses. If safety requires flight operations within one mile of walruses, then pilots should maintain a 3000' minimum altitude. For single engine aircraft, pilots should not fly within one-half mile of walruses; if safety requires flight operations within that half-mile, then pilots should maintain a 2000' minimum altitude.1118 Also, the ROP should advise pilots that compliance with this ROP may not prevent disturbances in all situations, and that ultimately pilots are responsible for operating their aircraft in a manner which does not cause disturbance or violate the Marine Mammal Protection Act.1119 1117 See Wilson and Evans. 2009. “Establishing a Protection Zone Around a Walrus Haulout on Hagemeister Island in Northern Bristol Bay - A Discussion Paper.” 1118 FWS, Pacific Walrus, Use of Coastal Haulouts Along the Chukchi Sea Coast, August 2019. 1119 Id.	UAS devices should not knowingly fly over or fly within 0.5 miles of walruses hauled out on land or ice to avoid causing a disturbance. If weather or aircraft safety require flight operations within 0.5 miles of walruses, single engine aircraft should maintain a 2,000' minimum flight altitude. Pilots of helicopters should not knowingly fly over or fly within 1 mile of walruses hauled out on land or ice to avoid causing a disturbance. If weather or aircraft safety require flight operations within 1 mile of a haul-out site, helicopters should maintain a 3,000 foot minimum altitude. More stringent guidelines may be put in place as environmental conditions change. Any project permitted in the NPR-A would need to undergo consultation, pursuant to Section 7 of the Endangered Species Act at the time it is proposed.

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Donahey	Leah	Alaska Wilderness League	29320	221	Suggestion for specific change to an alternative	ROP I-1 is to educate personnel for operators on community values and customs and the importance of not disturbing archaeological, paleontological resources in areas where they operate. This ROP should go further to protect archaeological, paleontological, and cultural resources by providing education on specific identification. Operators will have difficulty complying with stipulations if they are not equipped with the correct tools and training.	ROP I-1 has been updated.
Donahey	Leah	Alaska Wilderness League	29320	227	Suggestion for specific change to an alternative	Given the large-scale harm to subsistence resources and users and their sociocultural systems that BLM predicts for all four alternatives, the draft EIS is deficient in failing to consider an alternative that avoids or minimizes harm to subsistence activities and users.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.
Donahey	Leah	Alaska Wilderness League	29320	228	Suggestion for specific change to an alternative	In sum, BLM's subsistence and sociocultural analyses do not meet the agency's mandates under NEPA, ANILCA, or the NPRPA. BLM must consider an alternative that reduces impacts to subsistence and sociocultural systems and provide a reasonable basis for comparison among the alternatives.	The NPRPA requires the BLM to have a competitive program of oil and gas leasing in the NPR-A. All alternatives must include future oil and gas development in the NPR-A. Surface resources will be protected through a combination of areas available for development and ROPs for permittees. It is not possible to prevent all impacts on subsistence users and resources.

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Kenning	Erik	ASRC	29299	31	Suggestion for specific change to an alternative	Tundra Travel ROP C-2: "Winter Tundra Travel" and ROP L-1: "Tundra Travel". Under ROP C-2, ASRC is concerned about "Tundra travel would be allowed when there is at least 3 inches of snow water equivalent above the highest vegetated surface (e.g., top of tussock)". This criteria could cause issues related community and industry winter tundra travel as written and it is something that can be addressed through pre-packing. BLM should work closely with the State and the NSB and continue to use their standards related to summer and winter tundra travel. These are proven and effective methods and the BLM should defer to their expertise and authority. Over burdensome new tundra travel regulations on BLM managed lands could become an encumbrance to future responsible exploration and development as well as creating unintended impacts to community projects.	ROP C-2 has been updated in the IAP/EIS.
Kenning	Erik	ASRC	29299	20	Suggestion for specific change to an alternative	ASRC is concerned about the seven mile no surface occupancy buffer along the BLM managed side of the Colville River in Alternative B. This could serve to restrict development in an area where ASRC owns vast subsurface acreage just outside of NPRA along the river. For the negative impacts that a no surface occupancy restriction could have on adjacent ASRC lands, ASRC does not support inclusion of this buffer into any alternative.	The 7-mile setback along the Colville River was included in Alternative B in response to scoping comments.

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Schell	John	ConocoPhillips Alaska	29272	6	Suggestion for specific change to an alternative	5.1 ROPs C-2 and L-1: Tundra Travel North Slope tundra travel has been well managed by state and local authorities for many years under accepted practices proven to protect tundra. The IAP/EIS should align with existing state and local requirements, which have been proven to work. Restrictions on tundra travel over what is allowed today would constrain development by reducing access to lands and potentially hamper operations when short-notice tundra travel is necessary to perform inspections or mitigate potential maintenance issues with infrastructure.	ROP C-2 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	7	Suggestion for specific change to an alternative	ROP C-2a is unreasonable and could preclude winter tundra travel on federal lands. The ROP C-2a requirement allows tundra travel when there is at least three (3) inches of snow water equivalent (SWE) above the “highest vegetated surface.” SWE is a measurement of the amount of water contained within snowpack. This requirement is impracticable for planning activities that require winter tundra travel on the North Slope. Early winter season tundra travel (i.e., pre-packing snow, which is essential for responsible ice road construction), would be prohibited because 3-inches of SWE likely would never be consistently present. Furthermore, the North Slope winter environment is subject to strong wind events that can significantly shift and remove snow cover from elevated surfaces, which could	ROP C-2 has been updated in the Final IAP/EIS

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	cause non-representative SWE for areas where tundra travel would actually occur. Winter tundra travel routes may reach 50 to 100 miles and typically span several North Slope landforms, with a broad range of elevation change and, as a result, snow depth or snowpack. Uncertainty around route restrictions would unnecessarily complicate most planned winter tundra activities. The BLM provides no data on SWE or snowpack within the Planning Area to support a 3-inch SWE measurement. Upon a cursory review of monthly climate summary data provided in the IAP/EIS Appendix G, Table G-1, reported snowfall amounts are relatively low in the Planning Area, ranging from around 10 to 17 inches during winter months. Without further data or analysis provided, it appears reported snowfall amount is unlikely to support a 3-inch SWE along the “highest vegetated surfaces.” ConocoPhillips strongly recommends that BLM retract the “3-inch SWE above the highest vegetated surface” requirement and instead provide a requirement for sufficient natural snow cover like those already established by Alaska Department of Natural Resources and North Slope Borough requirements. Both the State of Alaska and North Slope Borough require a 6-inch snow cover and specific ground temperature at depth (i.e., -5° Celsius at 30 centimeters depth)	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	to provide appropriate, proven protections to tundra.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	5	Suggestion for specific change to an alternative	As currently written, K-9 prohibits major construction activity using heavy equipment in the Teshekpuk Caribou Herd (Teshekpuk Caribou Herd) Habitat Area from May 20 to August 20. While a version of this requirement applies in some areas under the existing IAP, it does not apply to areas currently proposed for development. If K-9 were to apply to Willow under the new IAP, it could have a substantial negative impact on the Willow construction schedule and project economics. It is essential that the final IAP/EIS revision make it clear that K-9 is not expanded to apply to the Willow MDP.	Stipulation K-9 has been updated in the Final IAP/EIS. The applicability of lease stipulations to previously sold leases has been clarified in Chapter 2.

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Schell	John	ConocoPhillips Alaska	29272	8	Suggestion for specific change to an alternative	ROP C-2f is unnecessarily restrictive. This ROP states, "Ice roads may not use the same route each year; ice roads would be offset to avoid portions of an ice road route from the previous 2 years." The prohibition of siting an ice road along the same consecutive route is too restrictive and could cause more harm to the environment if a route were "offset" into sensitive areas. Ice roads, by nature of their design, cause little to no long-term impact on the environment. Furthermore, changing routes annually could create additional unnecessary and disruptive field survey work using helicopters to locate new routes and water sources. It also creates potential for increased water usage during ice road construction if alternate routes require longer roads. The Alaska Department of Natural Resources approves construction of the annual Alpine Resupply Ice Road, which is built along the same route each year with minimal environmental impact.	ROP C-2 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	13	Suggestion for specific change to an alternative	ROP A-13: Firefighting Foam Standards (new) This requirement prevents an operator from choosing to use fluorine-containing firefighting foam. Operators should have the flexibility to use fluorine-containing foam if it is the most effective foam for fighting fires to protect life and property. This requirement should allow for use of fluorine-containing foam not just if a regulatory agency requires it, but also if BLM approves of its use as a reasonably necessary safety measure.	ROP A-13 was updated in Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	14	Suggestion for specific change to an alternative	ROP A-14: Vehicle Idling Standards (new) The strict requirement to “power off and plug-in” is unsound for operation of vehicles in very low temperatures. In the very low winter temperatures on the North Slope, engine block heaters are not always sufficient to maintain vehicle fluids systems in safe, operable conditions and spills can occur as a result. Furthermore, emergency services vehicles may require idling if on standby for emergencies. Limiting vehicle idling and employing vehicle “plug-ins” are existing best practices for North Slope operators under applicable conditions. ConocoPhillips does not support this ROP as written.	ROP A-14 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	30	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 e Alternative A: ROP A-10(e) Alternatives B, C, and D: ROP A-10(e) BMP A-10 e. or ROP A-10 e. should remove any references to the air quality increment. Air quality increments are strictly a facet of the PSD permitting program and thoroughly addressed by ADEC/EPA through that permitting effort. Outside of the PSD program, air quality increments have no effect on any other regulations or health standards. BLM has no authority to regulate or enforce against air quality increments, and therefore should not reference them at all in these ROPs.	ROP A-10 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	35	Suggestion for specific change to an alternative	Page 2-12 ROP B-2 Water Use From Lakes - clarification ROP B-2. ConocoPhillips appreciates this BMP is clarified to allow ice aggregate from grounded areas of lakes. ConocoPhillips suggests rewording the ROP as follows to provide further clarity: Requirement/Standard: Withdrawal of liquid water from lakes and the removal of ice aggregate from grounded areas 4 feet deep or less during winter... Winter Water Use a. Lakes with sensitive fish (i.e., any fish except ninespine stickleback or Alaska blackfish): liquid water available for withdrawal is limited to 15% of calculated volume deeper than 7 feet. b. Lakes with only non-sensitive fish (i.e., ninespine stickleback or Alaska blackfish): liquid water available for withdrawal is limited to 30% of calculated volume deeper than 5	ROP B-2 has been updated based in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	35 *(cont.)*	*(see above)*	feet. c. Lakes with no fish, regardless of depth: liquid water available for withdrawal is limited to 20% of total lake volume. Winter Water and Ice Aggregate Use a. Ice aggregate may be removed from grounded areas 4 feet deep or less on any lake. b. Lakes less than 4 feet deep, ice aggregate available for removal is limited to 20% of total lake volume. c. The combination of liquid water and ice aggregate must not exceed 15% of total lake volume at lakes with sensitive fish species. d. The combination of liquid water and ice aggregate must not exceed 20% of total lake volume at lakes with resistant fish species only. e. The combination of liquid water and ice aggregate must not exceed 20% of total lake volume at lakes with lakes with no fish. Winter Snow Use a. Grounded Ice: Compaction of snow cover or snow removal from fish-bearing waterbodies shall be allowed at areas of grounded ice. b. Non-grounded Ice: Areas where ice is not grounded, compaction of snow cover or snow removal from fish-bearing waterbodies shall be prohibited except at approved ice road and snow trail stream crossings, water pumping stations on lakes, and ice airstrips on lakes. Additional data collection may be required at ice airstrips. Summer Water Use a. Requests for summer water use must be made separately, and the volume allowance would be evaluated on	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	35 *(cont.)*	*(see above)*	a case-by-case basis. Approval from the BLM AO is required.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	38	Suggestion for specific change to an alternative	Page 2-13 ROP C-2 c Off-road travel is prohibited except for low ground pressure vehicles ROP C-2 c. Ensure this requirement is consistent with ADNR and NSB standards and does not prohibit use of generally any vehicle when environmental conditions can support their use. Off road travel is authorized with any type of vehicle once tundra conditions (6” snow and -5 C at 30 cm tundra) are met.	ROP C-2 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	42	Suggestion for specific change to an alternative	Page 2-15 ROP E-1 c Policies posted on signage ROP E-1 c. This ROP requires that the policy regarding use of all roads and prohibitions need to be posted on the roads with “visible, permanent signage.” The policy is a full page with a map that is very difficult to put on a permanent sign along the road. It also would make it difficult to make modifications as they arise from working with the community. ConocoPhillips recommends removing the reference to permanent signage or modify the requirement to allow maintaining plans and information at security stations and safety check points.	ROP E-1 has been updated in the Final IAP/EIS for clarity.
Schell	John	ConocoPhillips Alaska	29272	43	Suggestion for specific change to an alternative	Page 2-15 ROP E-5 e Liners under gravel pads ROP E-5 e. Liners under gravel pads are infeasible. We recommend removing this requirement.	ROP E-5 was updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	46	Suggestion for specific change to an alternative	ROP E-12 Separate, detailed maps based on LIDAR or other high-accuracy surface imaging. ROP E-12. ConocoPhillips does not believe this to be a reasonable demand to make on operators. This level of detailed map is not needed for design work or permit submittals, and nearly all permanent infrastructure footprint will still require a ground-based "walk down" of the alignment prior to construction. Requesting this level of mapping before approval of construction could delay permitting as LIDAR and other high-accuracy imaging cannot necessarily be obtained each summer due to weather constraints. Furthermore, sufficient mapping products would likely result from deliverables requirements for hydrological data collection in the proposed ROP E-6 (previously required under BMP E-14) and ecological land survey mapping still required in the proposed ROP E-14. This requirement arguably does not provide as much value as the on-ground assessments (in other ROPs), and would only increase aircraft traffic within the NPR-A.	ROP E-12 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	52	Suggestion for specific change to an alternative	Page 2-22 ROP G-1 Remove "approved by the BLM" ROP G-1. ConocoPhillips recommends that the second sentence be re-drafted as follows: "The leaseholder shall develop and implement an abandonment and reclamation plan consistent with industry standards and best practices."	The BLM's approval of such plans ensures appropriate agency oversight. ROPs apply to non-oil and gas activities, as well as oil and gas activities, thus a uniform approach is appropriate.

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Schell	John	ConocoPhillips Alaska	29272	15	Suggestion for specific change to an alternative	ROP E-12: Use of Ecological Mapping (revised from BMP E-12) The requirement to "develop a separate map with detailed water flowlines and small-scale delineation of drainage catchments based on LiDAR or other high-accuracy surface imaging" is problematic. Requiring expensive LiDAR for every project will increase costs for minimal return on value as it will not substitute for ground assessment. Opportunity to combine LiDAR mapping projects to optimize data collection and share costs may be infrequent. LiDAR surveys are highly dependent on good weather, which can be unpredictable on the North Slope, leading to inability to collect data and unduly delaying projects. BLM should remove the requirement for mapping based on LiDAR under this ROP.	ROP E-12 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	17	Suggestion for specific change to an alternative	ROP F-4: Reduce Impacts of Air Traffic on Subsistence Resources (revised from BMP F-1) The added requirement to suspend "nonessential" helicopter flights within 2 miles of "heavily used subsistence rivers" during peak caribou hunting (currently July 15 through August 15) is misinformed and is unfeasible for current and future planned exploration and development opportunities. As a standard practice, ConocoPhillips operates helicopters in such a manner as to avoid disturbance of subsistence activities and wildlife. The term "nonessential" is undefined and too uncertain. ConocoPhillips is not aware of evidence that supports the notion that the Ublutuoch river (also called "Tinmiaqsiugvik") and Fish and Judy creeks are "heavily used subsistence rivers" during this time period. Additionally, suspension of helicopter flights within a potentially 4-mile zone (i.e., 2 miles on either side of the river) would cause safety and logistics issues for ground work such as staking and stick-picking. BLM should remove this requirement and instead continue to manage aircraft usage during select time periods through ROP F-2 and ROP F-3. In addition, BLM should remove the list of "heavily used subsistence rivers" from ROP F-4, renaming it "important subsistence rivers" (as described in ROP K-1), and placing it in ROP H-1.	ROP F-4 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	18	Suggestion for specific change to an alternative	K-1 - River Setbacks ConocoPhillips recommends that BLM clarify and confirm that the K-1 measures as described in this EIS/IAP will not apply to existing leases. We also advocate the express allowance of a process for waivers, exceptions, or modifications that can be proposed in cases where river setbacks would preclude development. In some cases, thoughtful placement of infrastructure within a setback may allow for development where the benefits outweigh the impacts.	Existing leases would not be affected by the stipulations or closures considered in the alternatives for this IAP/EIS. However, if a lease is renewed for an additional 10-year term under 43 CFR 3135.1-6, the lease stipulations of the new IAP would replace the original lease stipulations. Permittees may seek a waiver for Stipulation K-1.
Schell	John	ConocoPhillips Alaska	29272	58	Suggestion for specific change to an alternative	Page 2-26 ROP K-1 River Setbacks K-1. ConocoPhillips urges BLM to clarify that the K-1 measures as written in this draft EIS will not apply to existing leases. We also advocate the express allowance of a process for waivers, exceptions, or modifications that can be proposed in cases where river setbacks would preclude development. In some cases, thoughtful placement of infrastructure other than roads or pipelines within a setback other may allow for development where the benefits outweigh the impacts.	Existing leases would not be affected by the stipulations or closures considered in the alternatives for this IAP/EIS. However, if a lease is renewed for an additional 10-year term under 43 CFR 3135.1-6, the lease stipulations of the new IAP would replace the original lease stipulations. Permittees may seek a waiver for Stipulation K-1.

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Schell	John	ConocoPhillips Alaska	29272	143	Suggestion for specific change to an alternative	BLM has been less clear about whether and when it may apply new ROPs to existing leases, and BLM identifies the K-series of additional protection measures as ROPs in some cases. To the extent this means that BLM intends for the Willow MDP (or any other existing leases) to be subject to substantial new restrictions, then ConocoPhillips strongly objects. Uncertainty in this area creates potential for confusion, error, complication, and unintended consequences. We believe any new requirements in the K-series of protection measures should not be applied to current leases, which means they would not be applied to the Willow MDP. We urge BLM to clarify this point.	Chapter 2 has been updated in the Final IAP/EIS with a more thorough description of how similar ROPs and stipulations will be applied.

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Schell	John	ConocoPhillips Alaska	29272	32	Suggestion for specific change to an alternative	Page 2-11 ROP A-10 i Alternatives B, C, and D: ROP A-10(i) ROP A-10 i. This proposed ROP needs to retain the language concerning “within BLM's authority” that is included within Alternative A BMP A-10 g. It also should delete any reference to ambient air quality modeling. In many cases, BLM does not have the authority to require air emission control. This ROP should acknowledge this fact so that users of the NPR-A are not misled. Air emission control that is born from air quality modeling is the purview of ADEC/EPA to protect against the NAAQS/AAAQS or as Best Available Control Technology (BACT) under the PSD permitting program. This is not within BLM's authority.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	33	Suggestion for specific change to an alternative	Page 2-11 ROP A-13 Firefighting Foam Standards Requirement/Standard: At facilities where fire- fighting foam is required, use fluorine-free foam unless other State or federal regulations require aqueous film-forming foam use. ROP A-13. The word “extend” should be replaced with “extent” in the second sentence of the “Requirement/Standard:” section. Operators should have the flexibility to use fluorine-containing foam if it is the most effective foam for fighting fires to protect life and property. This requirement should allow for use of flouring-containing foam not just if a regulatory agency requires it, but also if BLM approves of its use as a reasonably necessary safety measure. The BLM need not mandate that all discharges must be reported to ADEC; it is already a requirement under applicable reporting regulations at 18 AAC 75.	Change made to ROP A-13

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	40	Suggestion for specific change to an alternative	Page 2-13 ROP C-2 f Ice roads would be designed and located to avoid the most sensitive and easily damaged tundra types, as much as practicable. Ice roads may not use the same route each year; ice roads would be offset to avoid portions of an ice road route from the previous two years. ROP C-2 f. BLM must remove the restriction "Ice roads may not use the same route each year..." The ADNR-permitted Alpine Resupply Ice Road is proof that that ice roads can be used in the same corridor year after year with limited to no environmental impact. If an initial route is selected to avoid sensitive and easily damaged tundra types, moving it the corresponding year would cause potential routing through the more environmentally sensitive area. The restriction is infeasible and unreasonable and could cause more harm by way of increase field survey (potential helicopter disturbance) and increase water required to build a more ice road if the changed route is longer.	ROP C-2 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	44	Suggestion for specific change to an alternative	ROP E-11 Yellow-billed Loon 1-mile buffer remains from BMP E 11 ROP E-11: ConocoPhillips is discouraged that BLM retained the 1-mile buffer restriction around yellow-billed loon nests in ROP E-11. ConocoPhillips believes this to be overly conservative and a requirement that will nearly always require permit deviation for any future resource development activity in the NPR-A. A recent article, "Territory Occupancy by Breeding Yellow-Billed Loons near Oil Development" published in The Journal of Wildlife Management (Johnson et al. 2019), which BLM cites in the IAP/EIS states, "The BLM restrictions on development were judged conservative in maintaining breeding territories around oilfield developments. Our results did not demonstrate displacement of nests or broods from long-standing territories by oil development". ConocoPhillips offers a specific example from the immense data set of yellow-billed loon nest productivity based on ConocoPhillips-sponsored studies in the Colville River Delta since the early 1990's. A yellow-billed loon nest site on lake L9323 has been monitored for 24 years (1993, 1995, 1997, 1998, 2000-2019). Nine (9) of those years of surveys were prior to the construction of ConocoPhillips' Alpine drill pad CD4. A nest was found on that lake during five (5) of those years for a 56% nesting rate. A brood, indicating a successful nest, was found in only	ROP E-11 has been updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	44 *(cont.)*	*(see above)*	two (2) years, for a 22% nesting success rate. After CD4 construction (and subsequent production operations), a nest was active on lake L9323 in 14 out of 15 years, for a nesting occupancy rate of 93%. A brood was found on that lake in 9 of those years, for a 60% apparent nesting success. Prior to the construction of CD4, lake L9323 ranked 4th in nest occupancy and 6th in brood occupancy compared to other territories across the delta.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	47	Suggestion for specific change to an alternative	Page 2-19 ROP E-18 Ground-level activity restrictions to protect nesting eiders. ROP E-18. ConocoPhillips agrees with the reduction of the time period from August 15 to July 31. This requirement should be modified to eliminate the requirement for an operator to consult with the USFWS regarding oil and gas emergency response training scheduling. ConocoPhillips currently works to limit spill response training and preventative maintenance for oil spill response outside of the nesting window, but as the nesting window and the open-water season for rivers overlaps, not all training or work can be reasonably accommodated outside of this window. It is inappropriate for BLM to require approval of a training schedule for oil and gas operators, as schedules change annually and should be at the discretion of the operator (lessee/permittee). Operators should not be required to conduct nest searching along	ROP E-18 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	47 *(cont.)*	*(see above)*	riverine, marine or inter-tidal areas to conduct training, as this would only increase aircraft traffic and potential disturbance from that aircraft traffic. ConocoPhillips recommends BLM revise this section, for example: "Oil spill response training and maintenance activities in riverine, marine, or inter-tidal areas shall be deferred, as practicable, to times outside the nesting window of June 1 - July 31." ConocoPhillips also encourages the BLM to define "higher densities of listed eiders" quantitatively, so it's clear to a project proponent or operator.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	53	Suggestion for specific change to an alternative	Page 2-23 ROP H-4 Edited language to provide more flexibility and optionality. ROP H-4. ConocoPhillips recommend the following sub-bullets 'a' and 'b' replace the language for ROP H-4 in the draft EIS: a. Permittee shall provide affected communities early and adequate notice of proposed activities. Application shall submit the complete subsistence plan (H-1) and the proposed plan of operation (or summary thereof) to appropriate North Slope entities at the earliest possible date (and no later than when an application is submitted to the BLM) to allow time for the North Slope entities to determine if the proposed action warrants further consultation. b. Permittees shall provide opportunities for affected communities to participate in planning and decision-making and shall solicit	ROP H-4 was updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	53 *(cont.)*	*(see above)*	and incorporate as possible local input on the siting, timing, and methods of the proposed operations. Permittees shall make reasonable efforts to present proposed activities to North Slope entities and to individual tribes and ANCSA corporations as requested. Through this consultation, the applicant shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities would not result in unreasonable interference with subsistence activities. - On any emailed meeting announcements, applications should carbon copy BLM. - For meetings announced by flyers or other means, the permittee should notify BLM by email. - Permittees shall provide the BLM with a copy of meeting notes within one month of the meeting date for all meetings held pursuant to their subsistence plan required in ROP H-1.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	3	Suggestion for specific change to an alternative	Alternative D makes more meaningful increases to land available for leasing but is subject to many of the same restrictions as in Alternative C. We detail our concerns about particular restrictions in the comments that follow. To identify examples at a summary level, we are concerned about a new requirement in ROP C-2a for three inches of snow water equivalent, which may dramatically reduce tundra travel; a prohibition in K-9e of “major construction activities” from May 20 to August 20 or longer, which may make construction of drill sites in new areas too time consuming or too expensive; and a glossary definition of “waterbody” that might be used under ROP A-5 to contend that refueling is not allowed near a wetland, which is not feasible on the North Slope where wetlands are nearly ubiquitous. We have identified these and other problems during the time available to review the draft IAP/EIS, and we are concerned that other problems may lie lurking in details that are not yet fully understood. ConocoPhillips does not oppose all new protective measures. For example, we have no objection to the new restrictions protecting surface resources north of Teshekpuk Lake.	ROP C-2 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	9	Suggestion for specific change to an alternative	ROP L-1a. is impractical under current practices. North Slope exploration and development operations may require summer or early winter season tundra travel using state-approved low-ground-pressure vehicles. Summer tundra travel may be necessary to address infrastructure management such as pipeline integrity inspections and electrical line maintenance. Early winter season tundra travel occurs often, primarily for pre-packing snow along ice road routes, using state-approved low-ground-pressure vehicles. ConocoPhillips conducts archaeological field studies (when practicable) and desktop archaeological review prior to tundra travel; routes are actively ground-surveyed to detect and avoid sensitive resources as tundra travel vehicles move over land. The requirement to conduct "surveys" (essentially, data collection and analysis) of subsistence use, soils, vegetation, hydrology, wildlife, and fish and their habitats is excessive for these low-disturbance activities and impractical for short-lead time projects. Additionally, the surveys would require increased helicopter traffic and potential disturbance of subsistence hunters and wildlife. ConocoPhillips recommends surveys of this nature be limited to ground-disturbing activities. If ROP C-2a is unchanged and the tundra travel "window" is reduced, as will likely be the case, more projects would be subject to ROP L-1a, requiring extensive field environmental studies.	ROP L-1 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	10	Suggestion for specific change to an alternative	ROP E-11: Protections for Sensitive Bird Species - Yellow Billed Loons ConocoPhillips is discouraged that BLM retained the 1-mile buffer restriction around yellow-billed loon nests in ROP E-11. ConocoPhillips believes this to be overly conservative and a requirement that will require permit waiver, exception, or modification for future resource development activity in the NPR-A. A recent article, “Territory Occupancy by Breeding Yellow-Billed Loons near Oil Development” published in The Journal of Wildlife Management (Johnson et al. 2019),4 which BLM cites in the IAP/EIS states, “The BLM restrictions on development were judged conservative in maintaining breeding territories around oilfield developments. Our results did not demonstrate displacement of nests or broods from long-standing territories by oil development.” ------------ 4 Johnson, C. B., A. M. Wildman, A.K. Prichard, C. L. Rea. 2019. “Territory occupancy by breeding yellow-billed loons near oil development”. Journal of Wildlife Management 83: 410-425.	ROP E-11 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	12	Suggestion for specific change to an alternative	ROP A-10: Air Quality (revised from BMP A-10) The revised ROP A-10 seemingly tracks existing EPA regulations, but does so only in part, which leads to duplicative or conflicting requirements. This duplication and potential for conflict undermines compliance assurance and creates undue burden on permittees and operators and BLM to manage duplicative (and potentially conflicting) plans and processes, and monitoring and reporting. BLM should not be in the position of directing an air quality compliance program over EPA. BLM should remove ROP A-10.	ROP A-10 has been updated in the Final IAP/EIS. The BLM has an obligation to evaluate impacts on air quality as part of its NEPA analysis, and this ROP will be retained.
Schell	John	ConocoPhillips Alaska	29272	19	Suggestion for specific change to an alternative	K-9 - Seasonal/Temporal Stop Work Condition Unduly Restricts Access to Lands ConocoPhillips does not oppose the 3-mile buffer north and the 1-mile buffer south of Teshekpuk Lake that allow for no surface occupancy. These buffers are described in measure K-9 as it is defined in Alternative D. ConocoPhillips does oppose other aspects of K-9, particularly the prohibition in subpart “e” of major construction activity. ConocoPhillips understands that “major construction activity” includes gravel placement on the tundra, gravel mining and pipeline support installation, but it is not clear what else might be deemed major construction activity. Economical resource development requires essential summer construction activities, such as seasoning (i.e., reworking in situ) gravel placed during winter, and	Stipulation K-9 has been updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	19 *(cont.)*	*(see above)*	on-pad facility construction and support activities. In many if not most cases, it would be unfeasible to halt on-gravel construction activities in the summer and still maintain an economically viable project. Subpart "e" also requires a "stop work" plan for early caribou arrival. Stopping work due to caribou presence is also unfeasible due to the scope and scale of summer activities during the short period of time required for drill site or other development facility construction. Stopping work early would result in a substantial logistical and demobilization challenge. Similarly, subpart "f" describes evacuating roads if large number of caribou are present. Evacuating roads is unfeasible because personnel require access for essential operations, including process safety management. Thus, K-9 could halt all or nearly all construction activities for at least three months of the year, require work stoppage for additional periods, and even require evacuation of roads if caribou are present. Additionally, given the complexities of road use and caribou movement, this is not a provision that BLM and operators could realistically administer in the field. Repeated evacuation and traffic re-deployment will only increase the amount of road traffic and cause more disturbance to caribou. Existing mitigation measures such as infrastructure design (e.g., pipeline height) and	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	19 *(cont.)*	*(see above)*	established operational practices (e.g., controlled traffic volume and vehicle speed limits) have been demonstrated to allow for free movement of caribou within an active oilfield. While we recognize that a version of K-9 exists and applies in some areas under the existing IAP/EIS, it does not apply to areas currently proposed for development. We urge BLM not to extend the K-9 restrictions as written to new leases. K-9 imposes a level of uncertainty on that is incompatible with investment in leases for potential economic development. ConocoPhillips is concerned about the effect these restrictions may have on local resident's ability to use oilfield roads for subsistence hunting. BLM need only look to the Central Arctic Herd in the Kuparuk River Unit oilfield to note that oilfield activities have not caused population-level impacts and that habituation of caribou can occur. This proposed stipulation is unnecessary because it does not address a known problem, and it is impractical because it cannot be effectively implemented.	*(see above)*

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Schell	John	ConocoPhillips Alaska	29272	34	Suggestion for specific change to an alternative	Page 2-11 ROP A-14 Vehicle Idling Standards ROP A-14. This requirement is specific to permanent camps, which seems feasible except during extremely low temperature weather conditions where idling may be preferable. Keeping vehicles idling during extremely low temperature conditions helps reduce failure of engine fluids systems (e.g., hydraulics, power steering, etc.) by keeping them warm. Extreme low temperatures risk freezing fluids systems; "plug-ins" do not keep efficient warmth of these systems in extreme conditions. The ROP should include wording to accommodate extreme low temperature conditions, such as "Except in cases of extreme low temperatures, when vehicles are not in use they shall be powered off and plugged in where plugs are available." Also, consider clarifying that this requirement applies in winter.	ROP A-14 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	36	Suggestion for specific change to an alternative	Page 2-12 ROP B-2 Water use from lakes ROP B-2. Water use is already effectively regulated and permitted by ADNR and ADF&G. BLM should require the same standards as existing management agencies rather than creating new stipulations and increasing regulations. The Requirement/Standard statement, "...withdrawal of water from lakes during the summer may be authorized on a site specific basis..." needs clarification since it could be interpreted to mean that every instance of use of a water source requires prior authorization from the BLM. This does not align with existing requirements under ADNR and ADF&G. Under All Water Use, a requirement for weekly reports is overly burdensome for operators and BLM. Quarterly reports are submitted according to ADNR requirements; BLM should align with those requirements for consistency and efficiency.	ROP B-2 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	45	Suggestion for specific change to an alternative	ROP E-11 Yellow-billed Loon 1-mile buffer remains from BMP E 11 (continued from above): Post-CD4 construction, lake L9323 ranked 1st in nest occupancy and ranked 1st in brood occupancy compared to other territories across the delta. The nest site on lake L9323 is approximately 1,200 feet from the CD4 drill pad access road and approximately 1,800 feet from the edge of the CD4 drill pad itself. These data suggest oil field development has not displaced nests or broods from historically occupied lakes on the Colville River Delta. ConocoPhillips believes that a 1-mile buffer around nests for this species is overly conservative and encourages BLM to consider a Y2-mile buffer instead. A Y2-mile buffer zone would uphold durable protection for the species, reduce conflicts with other stipulations and regulatory requirements, and would allow more flexibility for project infrastructure design so as to protect as many ecosystem components as possible.	ROP E-11 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	50	Suggestion for specific change to an alternative	Page 2-21 ROP F-2 Requirement for an aircraft use plan 60 days prior to activities ROP F-2. ConocoPhillips does not believe it's reasonable to submit flight altitudes or routes as part of an aircraft use plan that must be submitted 60 days before activities. Altitude and routes are primarily dictated by weather conditions and safe flying practices, so this detail typically would not be available this far in advance. The methods of monitoring and reporting flights are often supported by third-party vendors and software, whom ConocoPhillips retains the right to continually assess and change for improvement and efficiencies. Requiring this detail 60 days in advance is not reasonable.	ROP F-2 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	55	Suggestion for specific change to an alternative	Page 2-24 ROP L-1 a ROP L-1a. Tundra Travel: “On a case by case basis, the BLM may permit low- ground-pressure vehicles to travel off of gravel pads and roads during times other than those identified in ROP C2a. Permission for such use would be granted only after an applicant has completed the following: a)submitted surveys satisfactory to the AO of subsistence uses of the area, as well as of the soils, vegetation, hydrology, wildlife and fish and their habitats, paleontological and archaeological resources, and other resources, as required by the AO.” ROP L-1 a. ConocoPhillips conducts archaeological field studies (when practicable) and a desktop	ROP L-1 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	55 *(cont.)*	*(see above)*	archaeological review prior to any tundra travel. The requirement in this ROP L-1 for "surveys" (which in this case appears to be data collection and studies) for soils, vegetation, hydrology, and wildlife is excessive for low disturbance activities such as tundra travel using approved low-ground-pressure vehicles; rather, these type of surveys are appropriate only for ground-disturbing activities. These surveys would also increase helicopter traffic and cause potential disturbance of subsistence hunters and wildlife. This comment relates to ConocoPhillips' comment pertaining to ROP C-2 a.; as the requirement for snow-water-equivalent is excessive, thus this ROP L-1a would need to be triggered more often. ADNR and NSB currently require average 6-inches of snow cover for tundra travel. This method has proven effective and protective of tundra soils, vegetation, hydrology, and wildlife. Also, tundra travel plans often develop with limited lead time, so there would not be time to conduct extensive surveys. This is also impractical for summer tundra travel (for pipeline inspections etc.) as these are often conducted as needed, without time for extensive field studies and with vehicles that are protective of tundra. CPAI tundra travel procedures require training regarding tundra types, require routes to be walked ahead of tundra travel vehicles, and require	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	55 *(cont.)*	*(see above)*	Field Environmental Coordinator signoff for routes.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	57	Suggestion for specific change to an alternative	ROP M-1 b Extended periods of "stopped traffic" for caribou during calving, migration, and post-insect aggregation movement ROP M-1 b. ConocoPhillips is concerned about the statement, "By direction of the AO, traffic may be stopped throughout a defined area for up to 4 weeks to prevent displacement of calving caribou." Routine traffic to facilities is required. Drill pads and other infrastructure cannot go without critical safety checks, maintenance and other activity for extended periods of time; 4 weeks would be infeasible. The current proposed language could effectively "cut off" access to drill sites and similar, which we don't believe was BLM's intent. We recommend BLM revise to address critical work that cannot be deferred.	ROP M-1 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	151	Suggestion for specific change to an alternative	Page 2-9 ROP A-5 Refueling and Fuel Storage ROP A-5. BLM must remove the definition of “waterbody” in the Glossary. With the definition of 'waterbody' from the Glossary to now include wetlands (43 CFR 328.4 refers to WOTUS), it could be argued that there would be no fuel storage or fueling allowed within 100' of a wetland, which would effectively prohibit oil and gas operations in most of the NPR-A. This clearly is not BLM's intent, and the language should be revised accordingly. Additionally, ROP A-5 refers to “water body”, which is not clear if that form of the term is intentional. Use of “waterbody” or “water body” may be inconsistent in the EIS.	ROP A-5 has been updated in the Final IAP/EIS. The use of waterbody has been updated throughout the IAP/EIS for consistency.

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Schell	John	ConocoPhillips Alaska	29272	150	Suggestion for specific change to an alternative	Page 2-9 ROP A-4 d Fuel containers... shall be marked with... year filled or purchased. BMP A-4 e. or ROP A-4 d. BLM should remove the requirement pertaining to marking fuel containers. The requirement to mark a fuel container with year filled or purchased is impractical and provides little environmental protection over spill prevention requirements that require routine tank integrity inspections under 40 CFR 112. Some fuel containers are filled routinely; marking on a container each time it is filled is unnecessarily burdensome. Marking fill date on a container or tank is not a typical or common practice. This requirement imposes a compliance burden with no commensurate environmental protection.	ROP A-4 has been updated in the Final IAP/EIS for clarity.

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Schell	John	ConocoPhillips Alaska	29272	153	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 b Alternative A: ROP A-10 (a) Alternatives B, C, and D: ROP A-10(b) BMP A-10 a. or ROP A-10 d. Baseline ambient air monitoring (if deemed appropriate by the BLM) should not be restrictive of the year immediately prior to (or the year before) the submittal. When baseline ambient air monitoring is appropriate, the timing should have the same flexibility as EPA permitting regulations. 40 CFR 51 Appendix W Section 8.3 discusses background data and recommendations for ambient monitoring. This information is already codified. BLM should defer to this existing rule for recommendations on when and the duration of background data collection should occur.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	155	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 b Alternative A: ROP A-10 (a) Alternatives B, C, and D: ROP A-10(b) BMP A-10 a. or ROP A-10 b. Concessions need to be given for infeasibility of ambient air quality data collection. There could be a circumstance where no air monitoring data exists and BLM requests monitoring for the project area (in a remote area). There are currently no approved monitoring systems which can operate without being connected to an electrical grid and without frequent visits. This monitoring system would most likely require winter and summer tundra travel and refueling over tundra in order to maintain station temperatures that conform to EPA standards. The logistics alone for this hypothetical station seemingly prove infeasible or have a very low probability of success. Given these factors, it would appear that collecting the data would be more impactful to the environment than not.	ROP A-10 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	31	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 g Alternatives B, C, and D: ROP A-10(g) ROP A-10 g. This requirement is duplicative to ROP A-10(j) and should be deleted. Part g of this requirement should be rewritten to require that air monitoring reports will be provided to BLM. Distribution to other entities should not be required. The BLM should determine how the reports are to be used or further distributed.	ROP A-10 has been deleted from the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	37	Suggestion for specific change to an alternative	Page 2-13 ROP C-2 a Environmental conditions to allow winter tundra travel ROP C-2 a. This requirement is too restrictive and would unnecessarily prohibit access to lands. BLM should replace the "3-inch Snow Water Equivalent" requirement with a measurement aligned with ADNR and NSB requirements, such as 6-inches of snow cover. A 3-inch Snow Water Equivalent (SWE) above the highest vegetative surface is not feasible for North Slope winter tundra travel, particularly for early season tundra travel. Overall snowfall is very low across the North Slope and extreme wind conditions would cause variable snowpack across road routes, making a 3-inch SWE likely problematic to demonstrate along travel corridors. SWE is not calculated for snow surveys, and ADNR and NSB require average 6-inch of snow cover. There is exposed tundra throughout the North Slope all winter season - during conditional construction, snow is piled in low areas and ice chips are added to cover any remaining exposed tundra on ice road routes to ensure sufficient snow cover.	ROP C-2 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	39	Suggestion for specific change to an alternative	Page 2-13 ROP C-2 e Tundra protection from compaction ROP C-2 e. To clarify this requirement does not apply to Rolligons, ConocoPhillips suggest revising as follows: "To reduce the possibility of excessive compaction, vehicle operators should avoid using the same routes for multiple trips unless necessitated by serious safety or environmental concerns. This provision does not apply to permitted snow trails for use by low-ground-pressure vehicles such as Rolligons and ice roads."	ROP C-2 has been updated in the Final IAP/EIS.
Schell	John	ConocoPhillips Alaska	29272	48	Suggestion for specific change to an alternative	Page 2-20 ROP's (E-6, E-8, E- 11, E-12, E- 18) Use of Aircraft for Permitted Activities Multiple "E" ROPs. Excessive regulatory-driven study requirements are in direct opposition to the goal of a reduction of impacts of aircraft traffic on North Slope area subsistence hunters. ConocoPhillips raised this issue in our January 22, 2019 NPR-A IAP Scoping Comment letter to BLM, in reference to BMPs E-11, 14, and 18. Environmental studies in remote areas require extensive aircraft utilization, which is of special concern to certain North Slope communities. Additionally, there is real concern over exposing scientists to hazards of weather and wildlife when deployed in remote areas to gather scientific data. BLM must always consider opportunities to reduce or minimize instances of aircraft use for regulatory-driven study requirements.	All ROPs and lease stipulations requiring studies have been adjusted to allow for the use of existing data, where such data exists.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	49	Suggestion for specific change to an alternative	Page 2-20 ROP E-23 Requires a workshop to be convened "prior to permitting" on placement of permanent infrastructure within Teshekpuk Caribou Herd Habitat Area ROP E-23. Since placement of permanent infrastructure will require a NEPA analysis which involves Federal, State and North Slope Borough representatives, and NEPA is the process where project is review, alternatives developed and many workshops are held with agencies, this workshop seems unnecessary and confusing on what "prior to permitting" timing is expected. BLM should consider removing this ROP.	ROP E-23 was clarified to "a workshop to be convened prior to submitting a permit for the development of permanent infrastructure."

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Schell	John	ConocoPhillips Alaska	29272	51	Suggestion for specific change to an alternative	Page 2-21 ROP F-4 Suspension of "nonessential" helicopter flights July 15 through August 15 ROP F-4. The added requirement to suspend "nonessential" helicopter flights within 2 miles of "heavily used subsistence rivers" during peak caribou hunting (currently July 15 through August 15) is misinformed and is unfeasible for current and future planned exploration and development opportunities. ConocoPhillips operates helicopters in such a manner as to avoid disturbance of subsistence activities and wildlife. The term "nonessential" is undefined and too uncertain to ensure compliance. ConocoPhillips disagrees the Ublutuoch river (also called "Tinmiaqsiugvik") and Fish and Judy creeks are "heavily used subsistence rivers" during this time period. Additionally, suspension of helicopter flights within a potentially 4-mile zone (i.e., 2 miles on either side of the river) would cause safety and logistics issues for ground work such as staking and stick-picking. ConocoPhillips suggests BLM remove this requirement and instead continue to manage aircraft usage during select time periods through ROP F-2 and ROP F-3. We also suggest removing the list of "heavily used subsistence rivers" from ROP F-4, renaming it "important subsistence rivers" (as described in ROP K-1), and placing it in ROP H-1	ROPs F-2, F-3. F-4, and H-1, and Stipulation K-1, have been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	56	Suggestion for specific change to an alternative	Page 2-25 ROP M-1 Wildlife habitat protection ROP M-1. The requirement includes additional measures that are already covered under various other stipulations. ConocoPhillips suggests removing: c. Summary of all off-road travel. (Operators already submit end of year/season reports. If BLM requires submittal of supplemental reports for new activities, then the requirement is unnecessarily burdensome for both the operator and BLM.) e. Collection of data on vehicle counts and wildlife interactions. (This requirement is poorly defined; annual reports of wildlife interactions are already submitted.)	ROP M-1 part (c) requires the permittee to submit a summary of future planned off-road travel, not a report of travel, which is already conducted. ROP M-1 part (e) deals with a potential monitoring program that would be defined at the project permitting phase.
Schell	John	ConocoPhillips Alaska	29272	59	Suggestion for specific change to an alternative	Page 2-35 ROP K-9 Teshekpuk Caribou Herd Habitat Area ConocoPhillips does not oppose the 3-mile buffer north and the 1-mile buffer south of Teshekpuk Lake. These buffers are described in measure K-9 as it is defined in Alternative D. ConocoPhillips does oppose other aspects of K-9, particularly the prohibition in subpart "e" of major construction activity. ConocoPhillips understands that "major construction activity" includes gravel placement on the tundra, gravel mining and pipeline support installation, but it is not clear what else might be deemed major construction activity. Economical resource development requires essential summer construction activities, such as seasoning (i.e., reworking in situ) gravel placed	Stipulation K-9 has been updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	59 *(cont.)*	*(see above)*	during winter, and on-pad facility construction and support activities. In many if not most cases, it would be unfeasible to halt construction activities in the summer and still maintain an economically viable project. Subpart "e" also requires a "stop work" plan for early caribou arrival. Stopping work due to caribou presence is also unfeasible due to the scope of summer activities described above and the scale of the construction effort. Stopping work early would result in a substantial logistical and demobilization challenge. Similarly, subpart "f" describes evacuating roads if large number of caribou are present. Evacuating roads is unfeasible because personnel require access for essential operations, including process safety management. Thus, K-9 could halt all or nearly all construction activities for at least three months of the year, require work stoppage for additional periods, and even require evacuation of roads if caribou are present. While we recognize that a version of K-9 exists and applies in some areas under the existing IAP/EIS, it does not apply to areas currently proposed for development. We urge BLM not to extend the K-9 restrictions as written to new leases that might be offered in the area south of Teshekpuk Lake. K-9 imposes a level of uncertainty on that is incompatible with investment in leases with a goal of economic development.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	145	Suggestion for specific change to an alternative	ROP A-14: Vehicle Idling Standards (new) The strict requirement to "power off and plug-in" is unsound for operation of vehicles in very low temperatures. In the very low winter temperatures on the North Slope, engine block heaters are not always sufficient to maintain vehicle fluids systems in safe, operable conditions and spills can occur as a result. Furthermore, emergency services vehicles may require idling if on standby for emergencies. Limiting vehicle idling and employing vehicle "plug-ins" are existing best practices for North Slope operators under applicable conditions. ConocoPhillips does not support this ROP as written.	ROP A-14 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	149	Suggestion for specific change to an alternative	Page 2-8 ROP A-2 Waste Management Plan ROP A-2. BLM should revise this requirement to clarify use of bear-resistant containers is for food wastes and is required “when practicable”. Use of bear-resistant containers for “all phases” of exploration, development, and production is impracticable for some work. For example, seismic camps typically do not use bear-resistant containers because work is conducted during winter when the likelihood of bear interactions is low. Existing waste best management practices in these cases has proven effective and acceptable by regulators. Bear-resistant containers are impracticable for some waste classes that are non-foods and do not attract bears such as construction and demolition (C&D), metals, wood, drill cuttings, etc.	ROP A-2 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	152	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 a Alternatives B, C, and D ROP A-10 (a) ROP A-10 a. should be revised to read as follows: a. All projects and permitted uses will comply with applicable National and Alaska Ambient Air Quality standards (NAAQS/AAAQS) and ensure air quality related values are protected at Class I and sensitive Class II areas as they are defined in the Air Quality Memorandum of Understanding. ROP A-10 a. is a new proposed condition. The proposed requirement for all projects to comply with all applicable NAAQS/AAAQS raises concerns that it is duplicative with EPA's authority to protect the NAAQS and could possibly violate the requirement in Executive Order 12866 that each agency, “shall avoid regulations that are inconsistent, incompatible, or duplicative with its other regulations or those of other Federal agencies.” It is the purview, granted via the Clean Air Act, of the EPA/ADEC to ensure compliance with applicable NAAQS/AAAQS in all areas.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	154	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 b Alternative A: ROP A-10 (a) Alternatives B, C, and D: ROP A-10(b) BMP A-10a. or ROP A-10 b. For non-PSD projects, the BLM should not require that ambient air quality monitoring data meet the same data requirements as PSD projects (EPA and ADEC regulations). Baseline/background data is a requirement for all Air Quality permitting types (minor and Prevention of Significant Deterioration (major)). The PSD program contains a requirement to conduct pre-construction air monitoring. This data, however is not intended to replace proper baseline/background data. The EPA could reject the pre-construction data collected to meet PSD preapplication requirements and not use that data in a modeling exercise. BLM is encouraged to align the baseline data collection requirements with baseline data collection to support ambient modeling requirements in PSD and minor source permitting. BLM's end use for the ambient data collected would be in a modeling demonstration, therefore that is what this BMP/ROP should be striving toward.	ROP A-10 has been updated in the Final IAP/EIS.

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Schell	John	ConocoPhillips Alaska	29272	156	Suggestion for specific change to an alternative	Page 2-10 ROP A-10 d Alternative A: ROP A-10(e) Alternatives B, C, and D: ROP A-10(d) BMP A-10 e. or ROP 10 d. should be revised to explicitly state BLM will not ask for modeling unless the project will already trigger an ADEC permit classification that would require modeling. There should not be a circumstance where the BLM requires air quality modeling and ADEC does not. The reason for air quality modeling is to determine the project impacts as compared to the NAAQS/AAAQS. Protection of the NAAQS/AAAQS is under the authority of EPA/ADEC granted by the Clean Air Act. Projects with emissions of a given pollutant are understood by the ADEC/EPA to have minimal impacts without the need for explicit modeling if that project is located in an attainment/unclassifiable area and if project emissions fall below significant emission rates in 18 AAC 50.502(c)(4)(A). This assessment does not explicitly predict impacts, but it does, in fact address impacts using codified screening levels designed to require projects anticipated to have higher impacts to provide progressively more explicit impact quantification, as it becomes less clear that the project will have minimal impacts. If an air quality permit with air modeling is not required by ADEC, there is no reason for modeling to be required by the BLM.	ROP A-10 has been updated in the Final IAP/EIS.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	74	Suggestion for specific change to an alternative	The EIS should be exploring options for such a road, not dictating or assuming where it will be located without any analysis of the relative benefits and drawbacks of different routes. If anything, routing the road north of the lake appears to be one of the worst options, not the best. The impacts could likely be reduced by taking a more southern route through less critical habitat and subsistence areas. It would also be a more direct route to and through public lands south of Nuiqsut (and Kuukpik-owned land). Finally, a southern route may be the best place for a community road to cross the Colville River since areas farther north in the Colville Delta are unlikely to be practical and Kuukpik lands may not be available.61 Although some have suggested tying the community road into the Willow road system if that project goes forward, that would require extensive negotiations and agreements between ConocoPhillips, Kuukpik, BLM, and NSB at a minimum-agreements that may not be reached. There may therefore be no real choice but to route the road south of Nuiqsut. This makes a route south of Teshekpuk Lake all the more logical and probably preferable from an impacts perspective. The Final EIS should include some discussion and analysis of alternative road routes so people can properly evaluate the relative risks and benefits of various alternatives.	An analysis of a road north of Teshekpuk Lake was included at the request of a cooperating agency. This plan makes no decisions about the routing of such a road, and any proposal would be subject to additional NEPA analysis. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

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Fisher	Kevin	North Slope Borough	29290	49	Suggestion for specific change to an alternative	5. Subsistence Consultation for Permitted Activities (H-1 through H-5) The Borough requests that BLM retain the subsistence consultation requirements in Alternative A, subject to several modifications. The Borough notes that these consultations provide an important mechanism to reduce impacts to subsistence resources and to reduce conflicts between subsistence uses and other activities. The Borough is concerned that, under Alternatives B, C, and D, BLM's proposed ROP H-1, ROP H-2, and ROP H-4 reflect significant revisions that would undermine the benefits provided by the existing consultation requirements. For example, ROP H-1 would limit the requirement to submit a subsistence plan for those projects that would occur within 50 miles of a community or fewer than 15 miles from heavily used subsistence rivers. Our hunters and fishers use areas much greater in size than those outline in ROP H-1. In addition, for those projects within those geographic areas, ROP H-4 would no longer require actual consultation, but would adopt lesser notice and information sharing requirements. The obligation to “facilitate” consultation is not an adequate substitute for the existing consultation requirements that have been successful in minimizing impacts on subsistence uses and resources. Given that oil and gas activities	ROPs H-1, H-2, H-3, H-4, and H-5 have been updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	49 *(cont.)*	*(see above)*	within the NPR-A will be in part supported by barging operations, BLM must ensure that potential impacts to both onshore and offshore resources and subsistence activities are appropriately mitigated and managed.	*(see above)*
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	16	Suggestion for specific change to an alternative	* BLM should eliminate the K-9 prohibition on “major construction activity” from May 20 to August 20. This is a vague restriction that might be applied in a way that prevents economic development of leases, and would be a disincentive to bidding on leases made available under an expanded leasing program south of Teshekpuk Lake under Alternative C or D. Although a version of this requirement applies under the existing IAP, it does not apply in any areas that are proposed for development. * BLM should eliminate proposed ROP C-2a, which would impose an entirely new and unnecessary requirement for three inches of snow water equivalent above the highest vegetated surface prior to approval of tundra travel. This is a solution in search of a problem, and may dramatically restrict seismic data acquisition, exploratory drilling, and other activities that depend on tundra travel. Instead of imposing a new and unnecessary requirement, BLM should continue to follow the proven practices used by the State of Alaska and the North Slope Borough to approve tundra travel. * It should be explicitly	ROP C-2 has been updated in the Final IAP/EIS. Existing leases would not be affected by the stipulations or closures considered in the alternatives for this IAP/EIS. However, if a lease is renewed for an additional 10-year term under 43 CFR 3135.1-6, the lease stipulations of the new IAP would replace the original lease stipulations.

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(see above)	*(see above)*	*(see above)*	*(see above)*	16 *(cont.)*	*(see above)*	stated in the IAP that existing leases will not be held to any closure, buffers, or no surface occupancy restrictions. In the event of an extension or renewal, industry should have the certainty that BLM will not introduce new lease stipulations which would impact access to and development of their lease.	*(see above)*
Trupp	Rick	SAExploration	27290	1	Suggestion for specific change to an alternative	BMP A-2/ROP A-2 : Waste Management Plan - While SAE has no objection to preparing and implementing a comprehensive waste management plan for their seismic program, as described in both BMP A-2 and ROP A-2; we recommend not limiting our incinerator sled and wire cage as our “bear resistant” container. The lessee/operator/contractor would prepare and implement a comprehensive waste management plan for all phases of exploration, development, and production, including seismic activities. The plan would include methods and procedures to use bear-resistant containers for all waste materials and classes.	ROP A-2 has been updated in the Final IAP/EIS.

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Trupp	Rick	SAExploration	27290	2	Suggestion for specific change to an alternative	BMP C-1/ROP C-1: Den buffers and survey requirements We do not agree with the language that allows for trained dogs. Currently in Alaska, there are very limited trained dogs (2) and also dog operators (2) so this would limit compliance if ever required to include both measures based on the availability. Infrared (IFR) technology is only improving and this has been the preferred method of pre identification of the location of polar bears dens and until further proven studies indicate, any further mitigation (such as trained dogs) should only be determined through the consultation process under the Letter of Authorization process with USFWS. In order to limit disturbance around known polar bear dens, implement the following: *Attempt to locate polar bear dens-Operators seeking to carry out in onshore activities in known or suspected polar bear denning habitat during the denning season (approximately November to April) must make efforts to locate occupied polar bear dens within and near areas of operation, utilizing appropriate tools, such as infrared imagery and/or polar bear scent-trained dogs. All observed or suspected polar bear dens must be reported to the USFWS prior to the initiation of activities.	A change has been made to require the use of dogs, at the discretion of the USFWS, pursuant to ESA consultation.
Trupp	Rick	SAExploration	27290	4	Suggestion for specific change to an alternative	BMP C-2/ROP C-2: Winter Tundra Travel We believe that if implementing tundra travel requirements for BLM	ROP C-2 was updated in the Final IAP/EIS.

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(see above)	*(see above)*	*(see above)*	*(see above)*	4 *(cont.)*	*(see above)*	management lands that it should tolerate similarly to State requirements for consistency. Due to the variation of the tundra and regions where tussocks and sage vegetation are located, to say that there only be 3 inches over the highest vegetated surface is lacking clarity in large areas where seismic operates and to be in full compliance to these conditions would be difficult considering the varying of the tundra/snow/wind on a consistent basis. We recommend keeping the Alternative A BMP C-2 or to simply mirror the state requirements for consistency when concerning tundra travel opening. Ground operations would only be allowed when frost and snow cover are at sufficient depth, strength, density, and structure to protect the tundra. Soils must be frozen to at least 23 degrees Fahrenheit at least 12 inches below the lowest surface height (e.g., inter-tussock space). Tundra travel would be allowed when there is at least 3 inches of snow water equivalent above the highest vegetated surface (e.g., top of tussock). Snow depth and snow density must amount to no less than a snow water equivalent of 3 inches over the highest vegetated surface (e.g., top of tussock) in the NPR-A. The proponent shall submit data to the BLM to show that these conditions have been reached prior to conducting work.	*(see above)*

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Trupp	Rick	SAExploration	27290	6	Suggestion for specific change to an alternative	BMP H-2/ROP H-2: Consultation Requirements for Seismic Exploration We believe that there should be a notification process but to consult individually is not always practical and reasonable since sometimes there are many heirs to an allotment or camp/cabin. Furthermore, with respect to camps/cabins, the list provided is not always current and available. Also, the native allotment and the list of camps/cabins/campsites are two different processes (allotments are legal ownership/conveyance of lands and camps/cabins are not) and should be treated as such. We also believe that one mile is an unreasonable distance buffer. We have been able to work within 500 feet in previous years by consulting with the affected owners considering the latest advancements in technology and equipment minimizing the environmental impact footprint. Requirement/Standard: Applicants conducting geophysical (seismic) exploration shall: a. Notify and consult individually with all potentially affected allotment, camp, and cabin owners. *The official recognized list of subsistence-use cabins and campsite users is the NSB's most current inventory of cabins and campsites, which have been identified by the subsistence users' names. *For the purpose of this standard, a potentially affected site is defined as any allotment or camp or campsite	ROP H-2 was changed to "notify and offer individual consultation with all potentially affected allotment, camp, and cabin owners." Permittees are required to use the most current version of the NSB inventory of camps and cabins for notification and consultation purposes. Seismic work can occur within 1 mile of a known subsistence camp or cabin with the agreement of an owner but never closer than 300 feet.

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(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	located within the boundaries of the area proposed for geophysical exploration or within 1 mile of travel routes used to supply seismic operations. * The AO would prohibit seismic work within 1 mile of these sites, unless an alternative agreement between the site owner/user is reached through the consultation process and presented to the AO. Regardless of the consultation outcome, the AO would prohibit seismic work within 300 feet of a known subsistence-use cabin or campsite.	*(see above)*

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Trupp	Rick	SAExploration	27290	5	Suggestion for specific change to an alternative	BMP C-5/ROP C-5: Seismic Surveys near fish habitat - We recommend BMP C-5. In ROP C-5, (b) and (c) we believe these items should involve consultation with the appropriate agency ADF&G for consultation on those activities rather than listing them in the stipulations (see below). b. When conducting air gun-based surveys in freshwater, operators shall follow standard marine mitigation measures that are applicable to fish (e.g., Minerals Management Service 2008): operators shall use the lowest sound levels feasible to accomplish their data-collection needs; ramp-up techniques will be utilized (ramp-up involves the gradual increase in emitted sound levels, beginning with firing a single air gun and gradually adding air guns until the desired operating level of the full array is obtained). c. When conducting explosive-based surveys, operators shall follow setback distances from fish-bearing waterbodies, based on requirements outlined by Timothy (2013).	ROP C-5 has been updated in the Final IAP/EIS.

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Trupp	Rick	SAExploration	27290	3	Suggestion for specific change to an alternative	ROP c-1 (d): We believe that there is no basis (scientific data) for this test as a result of any previous disturbances to seals or seal lairs as it relates to seismic operations. Related, vibroseis tests on lakes with over wintering fish (Morris and Winters 2005) demonstrated that there were no impacts to fish from vibratory operations. In addition, in previous consultation with NMFS, mitigations were only required when surveys extended beyond the 3m bathymetry depths and we observed 500-foot setbacks for vibratory operations around known seal lairs in the past and feels that this practice is acceptable. Specific to seismic operations: In open water and water ungrounded ice and before the seismic survey begins, the operator will conduct a sound source verification test to measure the distance of vibroseis sound levels through grounded ice to the 120 decibels re 1 micro Pascal threshold. Once the distance of 1 micro Pascal is determined, the operator will share it with the BLM and the National Marine Fisheries Service. The distance will be used to buffer all on-ice seismic survey activity operations from any open water or ungrounded ice throughout the project area. The operator will draft a formal study proposal and will submit it to the BLM and National Marine Fisheries Service for review and approval before the activity begins.	ROP C-1 has been updated in the Final IAP/EIS.

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Little	Suzanne	The Pew Charitable Trusts	26136	9	Suggestion for specific change to an alternative	As permafrost melts in the arctic, gravel to shore-up the built environment will become increasingly valuable. All action alternatives open the entire NPR-A to gravel extraction. There are ecologically high-value locations where gravel extraction should not occur, and these locations should be identified and avoided in each alternative.	Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.
Patkotak	Blair	Wainwright	29323	1	Suggestion for specific change to an alternative	I'm looking at Alternative A, talking about leasing, and I see that Nuiqsut has a lease deferral for no leasing for at least ten years. What's the process on doing that if we want to extend like Wainwright corporation lands? Can we extend certain areas if we want no leasing done?	The BLM consulted with the Wainwright Steering Committee about a potential deferral around Wainwright.
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	5	Suggestion for specific change to an alternative	Additional steps could be taken to strengthen Alternative A in the final IAP/EIS, drawing from some of the aspects of other alternatives. In particular, we request that: 1. The upper portion of the Utukok River Uplands Special Area be designated as closed to leasing and unavailable for new infrastructure, as in Alternatives B-D, to enhance protection of the WACH. 2. Language proposed for ROP C-2 under Alternatives B-D be adopted for Alternative A so that there is a greater likelihood of maintaining habitat protections while accounting for a changing climate. 3. Language proposed for ROP E-1 under Alternatives B-D be adopted for Alternative A to enhance protections for	Portions of the Utukok River Uplands Special Area were designated as unavailable for leasing to protect the core calving area for the Western Arctic Caribou Herd. Final language for the ROPs being adopted in the Preferred Alternative can be found in Tables 2-2 and 2-3.

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(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	subsistence use and access. 4. ROP E-23 be added to Alternative A. Furthermore, representatives of the Working Group should also be invited to participate. 5. Requirements of ROP F-4 be incorporated into the existing requirements under BMP F-1 of Alternative A to reduce aircraft impacts on North Slope subsistence hunters and other users. 6. ROP H-5 be added to Alternative A to ensure information is publicly available to inform future management recommendations and decisions. 7. Standards for vehicle use plans from ROP M-1 be incorporated into Alternative A. Monitoring be required, not optional as in M-1e, and include records of traffic numbers on road segments to enable better studies of road and vehicle activity impacts on caribou and other species. 8. ROP M-5 be added to Alternative A to reduce dust, which can impact the quality of caribou forage as well as have negative human health impacts. 9. The river setback distances in Alternative A be updated to mirror those for Alternative B in ROP K-1 to enhance protections for critical species and values and to maintain river access options for subsistence hunters. 10. Language proposed for ROP K-3 under Alternative B be adopted for Alternative A to provide broader protection for waterbodies and riparian areas. 11. Protections of Alternative B under ROP K-5 be adopted for Alternative A to	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	5 *(cont.)*	*(see above)*	prevent leasing and new infrastructure within one mile of the coast. This will help protect caribou insect relief movements along coastal areas, as well as other key values. 12. Stipulations of ROP K-8 for Alternative B be adopted for Alternative A, preventing new infrastructure. In addition to protecting brant, this will also convey protections for caribou during various seasons.	*(see above)*
Burkart	Greta	–	27329	10	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: BMP-A7 Comment: There is a need for a similar requirement for alternatives B, C and D. The State of Alaska protections should be laid out clearly so that decisions makers, scientists, and the public can understand the potential impacts of disposal of produced fluids. State of Alaska permitting may change and the purpose of this plan is to ensure protection. If requirements are not specified here, the plan has no way of being effective at ensuring protection in the future, especially if the State of Alaska is under pressure to reduce protections.	This requirement was dropped from the action alternatives because it is already required by the State of Alaska. Should State of Alaska regulations change, the BLM would still be able to impose this requirement at the project permitting phase.

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Burkart	Greta	–	27329	8	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: ROP A-4 Comment: Required operating procedures to reduce the impacts of spills should be just as protective as they under Alternative A. For example appropriate containment of fuel with overpacks that store at least 110% of the volume should be required under all alternatives. Fuel and other chemicals should not be stored within 1,000 feet of a waterbody under any alternative.	Although this requirement would no longer be required as a BLM operating procedure it would still be required under federal law.
Burkart	Greta	–	27329	9	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: ROP A-5 Comment: Refueling should be at least 1,000 feet from a waterbody to help ensure protection of fish, wildlife and aquatic resources.	Due to the topography of the NPR-A it is not possible to require refueling to be at least 1,000 feet from a waterbody. The BLM has had to issue a waiver to this requirement for every permanent development in the NPR-A. This ROP was adjusted to make it achievable.
Burkart	Greta	–	27329	11	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: BMP-A-11 Comment: Alternative B, C, and D need to include the requirement to help ensure that permitted activities do not create human health risks through contamination of subsistence foods.	A comprehensive study of contamination in subsistence foods is beyond the scope of any single development. This study is more appropriate for federal, state, and local agencies to conduct.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta	_	27329	14	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: ROP-B-2 Comment: To not put a volume limit on summer water withdraw from lakes is reckless. This provides no protection for lake flora and fauna and migratory birds that rely on them. Not having any protections puts lakes at risk during summer and winter. Lake volume tends to decrease during the summer. Removal of water would have significant adverse impacts on lake connectivity, invertebrate communities, water temperature, dissolved oxygen, passage of fish, surrounding vegetation, and shorebirds during the summer and fall. If water volumes are low at fall/winter freeze-up, overwintering habitat would be diminished. Where and how is this justified? Limits should be set for all alternatives.	The allowable volume for water withdrawal would be set at the time of a permit application and would vary, depending on the specific lake.
Burkart	Greta	_	27329	12	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: BMP-A-12 Comment: Make it the permitttee's responsibility to meet the requirements listed under alternative A. It should be the responsibility of the permittee to conduct studies on long-term impacts on health of humans, food resources, wildlife, etc. The BLM should only be responsible for ensuring that the permittee has adequate study plans and is conducting adequate health protection activities. There needs to be a similar requirement under alternatives B, C, and D.	A comprehensive study of contamination in subsistence foods is beyond the scope of any single development. Requiring permittees to contribute financially to an ongoing study would contravene existing departmental guidance about compensatory mitigation. This study is more appropriate for federal, state, and local agencies to conduct.

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Burkart	Greta	–	27329	13	Suggestion for specific change to an alternative	Section: Alternatives Page: 2-9 Sub section: ROP-B-2(d) Comment: The following is a reckless addition to the Plan: “Ice aggregate may be removed from grounded areas 4 feet deep or less on any lake. The combination of unfrozen water and ice aggregate must not exceed 20% of total lake volume at lakes with resistant fish species only and lakes with no fish. The combination of unfrozen water and ice aggregate must not exceed 15% of total lake volume at lakes with sensitive fish species.” When both water and ice aggregates are removed, the limit should not be based on the total volume of the entire lake. The limit should be based on the volume deeper than five feet for lakes with sensitive/resistant fish and seven feet for lakes with sensitive fish species. This part of the ROP is less protective than the BMP in the current plan. The proposed change dramatically decreases protection for lake ecosystems, and would likely put many lake ecosystems beyond thresholds required for conserving the natural diversity of aquatic organisms in these lakes. The change weakens what little protection there would be for lakes during winter. Allowing removal of ice and water beyond the formerly proposed limits would be more detrimental to fish and wildlife habitat. Overwintering habitat for fish, invertebrates, vegetation, etc. is also a major concern. Withdrawing	ROP B-2 has been updated, based on public comments. The BLM may consider supplemental ROPs that are more restrictive for specific locations, if baseline conditions change for sensitive fish species between issuance of this plan and a project proposal.

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(see above)	*(see above)*	*(see above)*	*(see above)*	13 *(cont.)*	*(see above)*	liquid water reduces overwintering habitat. Removal of ice aggregates also reduces overwintering habitat by causing additional freeze-down. The proposed change would further limit the availability of liquid water and would have adverse impacts on fish, invertebrates, and aquatic vegetation. In 2003 the National Research Council's "Cumulative Impacts of Oil and Gas on the North Slope" recommended that studies be conducted to assess the impacts of lake water withdraw on invertebrates, littoral vegetation, and shorebirds. Seventeen years later there are still no statistically valid studies that can be referenced in a Plan. Allowing greater volumes of water and ice removal when we have so many threatened bird species relying on nearshore vegetation and invertebrates in these habitats would be a reckless violation of our international migratory bird treaty. Where and how would this change be justified?	*(see above)*
Lewis	Sherry	–	27433	1	Suggestion for specific change to an alternative	I would like to see strong climate protection added to alternative A. The impacts of climate change is severely affecting northern ecosystems and this needs to be taken onto account.	Changes cannot be made to Alternative A as it reflects the current management plan.

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Warren	Greg	–	26265	1	Suggestion for specific change to an alternative	Alternatives 3 and 4 should be modified or a new alternative developed to eliminate the proposed north-south pipelines that would cross Teshekpuk Lake. Instead, oil and gas transport that would have been associated with these proposed pipelines would instead use oil and gas barges for transport	The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B. Pipeline corridors under all action alternatives are necessary to provide access to state and federal offshore leases. Any analysis that considers a pipeline route will consider mitigation measures to minimize impacts on wildlife.

Z.3.44 Terrestrial Mammals

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	7	Terrestrial Mammals	Alternative C makes a much smaller area immediately around Teshekpuk Lake unavailable for leasing compared to alternatives A or B. While Alternative C establishes no surface occupancy and timing restrictions on development activities within the core calving area, as defined by the most recent 50% density contour during calving season, density contours will change repeatedly over the years with the use of newer location data and are not locatable on the ground. At a minimum, such boundaries for protection should be expanded to the nearest township or section boundaries. Even then, Alternative C would have a lower probability of preventing population level effects on the Teshekpuk Caribou Herd. This is compounded by the possibility of right-of-way access through no surface occupancy areas, which would be allowed under Alternative C. Roads in these areas could have negative effects on caribou during sensitive calving, post-calving, and insect relief periods.	Alternative C has been updated in the Final IAP/EIS. Geographic boundaries of stipulations and land use allocations was clipped to the nearest township and range in the ROD for leasing and permitting purposes.

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Donahey	Leah	Alaska Wilderness League	29320	176	Terrestrial Mammals	Another geographically broad impact is that all action alternatives contemplate the removal of the eastern reach of the Utukok Uplands Special Area, effectively allowing leasing and infrastructure in the upper Colville River area. That Special Area supports the highest concentrations of moose in the NPR-A in the winter, as noted by several subsistence hunters that noted the importance of the area for harvesting meat and fur trapping.949 The DEIS should examine the impact of opening this area to leasing and infrastructure on moose, furbearers, and on subsistence activities.	The Utukok River Uplands Special Area boundary was modified in all the action alternatives to include the headwaters of the Colville River. Alternative B considers making the entire Utukok River Uplands Special Area unavailable for leasing or new infrastructure. Under Stipulation K-1, Alternative B has a 7-mile setback from the Colville River, and Alternatives C and D have a 3-mile setback from the Colville River. These setbacks are NSO and unavailable for new infrastructure, except for essential coastal infrastructure. Additional text on a 1-mile setback under Alternative E was added.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	10	Terrestrial Mammals	Furthermore, it is surprising that BLM did not attempt a stronger quantification of impacts of the various alternatives on caribou and other species, especially in light of the existence of methods to quantify the range of potential impacts of leasing proposals while accounting for uncertainty in oil and gas development (e.g., Wilson et al. 2013). The reasonably foreseeable development scenarios proposed by BLM do an inadequate job of reflecting future development, such as not accounting for existing or proposed infrastructure in their development footprints and acreages. BLM should use the best available scientific approaches to inform their comparison of alternatives and include a robust quantification of relative impacts, following Wilson et al. (2013) or a comparable method, in the FEIS. BLM should also provide a quantitative analysis to estimate probabilities of population level effects under each alternative.	The results of this modeling effort are still preliminary and have not been peer reviewed as of the publication of the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	12	Terrestrial Mammals	All alternatives protect parts of the Western Arctic Herd's (WAH) summer range by making them unavailable for leasing. Alternative B protects a little more ofthe calving habitat at its northern extent, compared to Alternative A, but opens the eastern portion of the WAH's insect relief habitat. Alternatives C and D make far less area unavailable for leasing than either A or B. They also open a strip of land along the southern boundary of the Utukok River Uplands Special Area for development. Development in this area could impede the ability of pregnant female caribou to reach the calving grounds, as well as interfere with summer movements to access insect relief and foraging habitat. Such interference could influence herd productivity and body condition, potentially leading to population-level consequences. The FEIS needs to include quantitative estimation using robust scientific methodology to predict the probabilities of population level effects under each alternative. Since the Utukok River Uplands Special Area was designated in this region to protect the WAH, population level effects would violate the intent of Congress in the Naval Petroleum Reserves Production Act of 1976.	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific locations. Impacts on the Western Arctic Herd are assessed qualitatively.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	6	Terrestrial Mammals	Alternative B also makes the areas around Teshekpuk Lake unavailable for leasing, conveying habitat protections for the Teshekpuk Caribou Herd. The	The amount of preferred calving habitat in different land statuses under each alternative is provided in the IAP/EIS (Appendix R), the amount of the calving area that is closed to

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	6 *(cont.)*	*(see above)*	configuration of these unavailable lands differs from Alternative A, which BLM states is based on recent caribou calving location data that has shown calving further to the west than previously observed. It is unclear, however, whether this altered configuration of leasing restrictions would better protect the Teshekpuk Caribou Herd in the future. No analysis is done of the expected impacts of raising the southern border nor of extending the western boundary of the area in which leasing is prohibited. This should be completed in the final EIS. Recent work with the Western Arctic Caribou Herd (WAH) shows that while caribou vary their precise calving locations from year to year, they tend to return to the same general area repeatedly (Caribou Trails 2019). The area around Teshekpuk Lake has long been important to the Teshekpuk Caribou Herd and is likely to remain so in the future if left undisturbed. Alternative B also allows up to two pipeline corridors in the sensitive Teshekpuk Lake area and the possibility of a community transportation infrastructure road north of Teshekpuk Lake. As the DEIS points out, there is a critical movement corridor east of Teshekpuk Lake that could be affected by such infrastructure and associated human activities. The IAP EIS needs a more robust analysis of such potential impacts.	leasing and closed to new infrastructure increases from Alternative A to Alternative B. The potential for community infrastructure under Alternatives B–D is discussed.

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Bruno	Jeff	State of Alaska	29317	43	Terrestrial Mammals	Page #: 3-159, para 1 Table or figure: Reviewer Name/Agency: ADF&G Comment: Add Poley et al. (2018) to the list of references.	The Final IAP/EIS has been updated to include the reference.
Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	13	Terrestrial Mammals	The DEIS' cumulative effects analysis is inadequate for the WAH. The DEIS states that additive impacts to caribou from NPR-A leasing would likely be minimal because the Ambler road primarily affects the WAH. The environmental impacts analysis for the WAH is still being revised making it inappropriate to assume a lack of impacts for the WAH. There are a number of reasons for concern about impacts to the WAH from the proposed Ambler road, as well as associated mines in the Ambler Mining District, as we pointed out in our comments on the Ambler Road DEIS. BLM needs to provide a more thorough cumulative effects analysis that fully accounts for the potential impacts of the proposed Ambler road, associated mines in the Ambler Mining District, southeastern NPR-A development, and other potential development in the WAH range, including ASTAR, Red Dog Mine expansion at the Anarraaq-Aktigiruq exploration site to the west of the NPR-A, and the proposed road between the Delong Mountain Transportation System and community of Noatak currently being considered through the Noatak Planning and Environmental Linkage study.	The Final IAP/EIS was updated to include other potential projects, including community infrastructure, that could occur in the range of the Western Arctic Herd.

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Svoboda	Nathan	Alaska Chapter of The Wildlife Society	26236	11	Terrestrial Mammals	The analysis in the DEIS of cumulative effects on the Teshekpuk Caribou Herd is inadequate. The Arctic Strategic Transportation and Resources {ASTAR) project would likely include an all-weather road to connect Utqiagvik and other North Slope communities to the Alaskan road system. This reasonably foreseeable development would have significant adverse impacts on the Teshekpuk Caribou Herd, which is an important subsistence resource for residents of the North Slope. This herd calves primarily in the TLSA and also uses this area for insect avoidance during the mosquito season. Both are critical periods in the caribou life cycle. Existing research clearly demonstrates that calving caribou avoid areas within 6 km of roads and that a network of roads and pipelines can hinder caribou movements during insect avoidance. The cumulative effects section of the FEIS must analyze these impacts on the Teshekpuk Caribou Herd in terms of probability of population level effects.	The IAP/EIS includes a discussion of the potential impact of road and pipelines on caribou calving and movements, including the potential impacts of a community road north of Teshekpuk Lake that would cross through areas extensively used for calving and mosquito season movements.

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Donahey	Leah	Alaska Wilderness League	29320	169	Terrestrial Mammals	Alternative D is especially egregious with regards to caribou calving protections as the entire Teshekpuk Lake Special Area is made available to leasing with over 85% of calving Teshekpuk Caribou Herd females expected to occur outside of areas closed to new infrastructure.941 According to the reasonably foreseeable development scenario, Alternative D would provide the same level of estimated oil production as if development were unconstrained.942 The costs of this extra oil production are laid out in the DEIS when it notes that "[d]epending on the location of development, this alternative could result in substantial displacement from current calving areas with the potential impacts on caribou survival, body condition and productivity."943 There is also "potential for substantial displacement and impacts to migratory movements, thus reducing resource abundance and availability for users of this herd."944 Clearly these tradeoffs do not represent the "appropriate balance" required by Secretarial Order 3352 nor do they comply with BLM's protective mandates for the NPR-A.	The environmental consequences section is devoted to a scientific analysis of the direct and indirect environmental effects of the proposed action in each of the alternatives. It forms the analytic basis for the concise comparison of alternatives, and the decision-maker uses the decision to inform the ROD.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	183	Terrestrial Mammals	Roads, pipelines, and other infrastructure can cause movement barriers and habitat fragmentation as well as habitat loss.980 Gravel mining associated with oil and gas facility and road construction can cause harm from habitat loss, water loss, and disturbance and displacement.981 Mining often occurs in river floodplains, where muskox congregate in the summer. Vegetation disturbance could lead to encroachment of non-native vegetation, affecting forage availability. The DEIS fails to assess the impacts of each of these activities on muskox.	Muskoxen are currently rare in the NPR-A. Additional information on potential impacts on muskoxen was included in the Final IAP/EIS.
Donahey	Leah	Alaska Wilderness League	29320	175	Terrestrial Mammals	Discussion of the impacts of other industrial activities like construction, blasting, gravel mining, helicopter or airplane overflights, etc., is insufficient to support any conclusion regarding the significance of those impacts on terrestrial mammals. The DEIS simply fails to meaningfully assess, and all but ignores, the impacts of industrial development on carnivores, and all terrestrial mammals except caribou (problems and issues with BLM's analysis of caribou are discussed above).	The Final IAP/EIS was updated with an additional discussion of carnivores.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	164	Terrestrial Mammals	Another key issue in evaluating risk to caribou of southwestern NPR-A development is the likelihood of such development occurring. The DEIS states multiple times that "[o]il and gas development is not currently expected to occur in southwestern NPR-A."907 Elsewhere, however, it is pointed out that "oil and gas development may still occur in areas of lower hydrocarbon potential."908 Even more importantly, "[o]ther areas with lesser hydrocarbon potential may experience infrastructure development not associated with oil and gas."909 This indicates that even a low probability of oil development may not lead to a low probability of absolute development and thus protection of caribou from impacts. As we pointed out during scoping, the Arctic Strategic Transportation and Resources (ASTAR) project has mapped potential roads that intersect the WAH calving grounds since it first started posting maps displaying potential futures for the project. These maps have changed multiple times since they were initially posted in 2017, but the most recent map910 still shows roads that would enter the Utukok River Uplands Special area. Under alternatives C and D, these roads could occur within the lands opened south of the area closed to leasing. Given the concerns above about the lack of restrictions on community transportation systems, such	The Final IAP/EIS was updated to indicate that, while oil and gas activity is not expected in southwestern NPR-A, other activity, including community infrastructure construction, is possible.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	164 *(cont.)*	*(see above)*	roads may also be allowed through the calving grounds. This reinforces the need to establish restrictions on community transportation system locations and to be clear about these in the FEIS. --------- 908 2 DEIS at E-22. 909 2 DEIS at E-22. 910 State of Alaska, Arctic Strategic Transportation and Resources - ASTAR, https://soadnr.maps.arcgis.com/apps/Cascade/index.html?appid=ab8be9349a08477ebfb66d017e0aec8d (last visited Nov. 22, 2019).	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	182	Terrestrial Mammals	Muskox are difficult to study, given the harsh conditions of where they live. BLM must identify it is missing information on muskox and discuss why it is not obtaining that information and moving forward or the agency must obtain the information. BLM appears to rely on studies from cattle, citing the IAP.	It is likely that significant ingestion of crude oil will have negative effects on muskoxen, as suggested by toxicity studies with cattle; however, it is unlikely that substantial numbers of muskoxen will ingest crude oil. Muskoxen are currently rare in the NPR-A.
Donahey	Leah	Alaska Wilderness League	29320	178	Terrestrial Mammals	In sum, the DEIS fails to disclose the extent to which the continued industrialization of terrestrial mammal habitat will disrupt and disturb mammals in the NPR-A. At minimum, BLM should take a hard look at any areas for which it is modifying the allowable land uses, to discern the likely impacts to impacted wildlife populations in terms of DLP interactions, hunting pressure, and disturbance to natural predator-prey relationships.	The Final IAP/EIS was updated; an additional discussion of carnivores was added, including DLP.

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Donahey	Leah	Alaska Wilderness League	29320	157	Terrestrial Mammals	In addition to failing to use the best available scientific methods to analyze expected impacts to caribou of NPR-A leasing and development, the DEIS features several other issues that likely lead to underestimates of impacts. First, the DEIS used kernel density estimation to identify the approximate percentages of female caribou that would be expected to overlap with different leasing and infrastructure restrictions during various seasons.881 However, there is an issue with the fluid mineral leasing status identities for Alternative A. The area shown as closed to fluid mineral leasing in Map 2-1 of the DEIS is different from that depicted in Map 1 of the 2013 IAP ROD.882 The westernmost part of the BMP K-8 stipulation area is not supposed to be closed to leasing under the 2013 ROD but is shown as closed in Map 2-1 and Map 2-2 of the DEIS. This area is also indicated as closed in the GIS files posted by BLM on the IAP revision ePlanning site.883 Assuming that Alternative A in the DEIS is truly intended to reflect the existing land management under the 2013 IAP, this amounts to an overestimation of the amount of area protected by being closed to leasing in the DEIS. This, in turn, likely will result in an overestimation of the percentage of female Teshekpuk Caribou Herd caribou overlapping with areas closed to leasing. It will also mean inaccurate comparisons of	The IAP/EIS GIS data and map match the Chapter 2 alternatives matrix.

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(see above)	*(see above)*	*(see above)*	*(see above)*	157 *(cont.)*	*(see above)*	the protections of Alternative A relative to the other alternatives. These numbers and associated maps, tables, and spatial data must all be corrected. -------- 881 See, e.g., 1 DEIS at 3-169, tbl. R-4; 2 DEIS at R-6 to R-7. 882 2013 IAP ROD app'x D, map 1. 883 Bureau of Land Mgmt., GIS Data, https://eplanning.blm.gov/epl-frontoffice/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=174101 (last visited Nov. 22, 2019).	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	163	Terrestrial Mammals	Migrating caribou can be delayed in their migration by roads, or even prevented from crossing entirely.906 While it is not certain what the demographic consequences would be for the WAH if a road were built between their winter range and calving grounds, the consequences could be severe. Certainly, this possibility is worth greater consideration than simply concluding that impacts would be minor. This does not align with the best available science. The FEIS needs to be updated to be clearer about the risks to WAH calving if development occurs in the southwestern NPR-A.	The Final IAP/EIS was updated to indicate that oil and gas activity is not expected in the southwestern NPR-A, but other activity, including community infrastructure construction, is possible.

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Donahey	Leah	Alaska Wilderness League	29320	177	Terrestrial Mammals	Additionally, industrial development can increase attractants for wildlife and increased negative human interactions. The existing infrastructure that supports industrial development in the Arctic substantially increases bear-human interactions. BLM must disclose how facilitating additional industrial development in the NPR-A would exacerbate interactions. Development has led to at least temporarily increased brown bear population density and prey mortality near oil fields, and could have long-term impacts on brown bear populations on the North Slope.950 There are a number of ways in which brown bears drawn to development areas are directly affected and BLM must analyze how the activities proposed under the different alternatives would perpetuate that.	The Final IAP/EIS was updated to clarify potential impacts on bears. The number of food-conditioned bears in the existing oilfields dropped considerably after improved waste management techniques were instituted in 1999.
Donahey	Leah	Alaska Wilderness League	29320	179	Terrestrial Mammals	Despite acknowledging the alarming declines, the DEIS does not fully describe the affected environment relating to the muskox in a way that conveys baseline conditions essential to understanding how oil and gas leasing and activities will impact the species and its habitats. It mentions some general areas where muskox have been observed, but should provide a map of areas used in the past or present, and that could foreseeably be used by muskox in the future, to help guide conservation efforts.	The Final IAP/EIS Affected Environment in Section 3.3.5 was updated to clarify muskox distribution and habitat use. Muskoxen are currently rare in the NPR-A.

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Donahey	Leah	Alaska Wilderness League	29320	180	Terrestrial Mammals	In the DEIS, BLM fails to take a hard look at the myriad impacts of the proposed lease sales and resulting oil and gas development activities on muskoxen and their habitats. Muskox are threatened by disturbance and displacement and habitat degradation from seismic activities and increased air and ground traffic; direct loss of habitat from gravel mining; barriers to movement from facilities, roads, and other infrastructure; increased hunting and poaching associated with increased human presence; increased predation due to increased numbers of predators attracted to human trash and food; and the additive and synergistic effects of climate change.	Muskoxen are currently rare in the NPR-A, and information on potential effects of seismic activity and aircraft was included. Additional information on potential impacts on muskoxen was included in the Final IAP/EIS, Section 3.3.5.
Donahey	Leah	Alaska Wilderness League	29320	156	Terrestrial Mammals	The DEIS claims that "[d]irect and indirect impacts cannot be analyzed on a site-specific basis within this IAP/EIS, but they are analyzed for the planning area generally, based on the reasonably foreseeable development scenario."870 It goes on to state that "[b]ecause specific project plans are not available for analysis, the areas available for leasing with and without restriction under each alternative were summarized in relation to the available data on terrestrial mammal distribution and in relation to predicted oil potential and hypothetical development scenarios."871 While it is accurate that a lack of specific project proposals prevents a complete analysis of actual expected	The results of this modeling effort are still preliminary and have not been peer reviewed as of the publication of the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	156 *(cont.)*	*(see above)*	impacts, these statements do not take into account existing methods to account for the uncertainty in future development locations while revealing a range of possible impacts on species of interest. As we pointed out at scoping, Wilson et al.872 provides an approach that explicitly addresses uncertainty in exactly where future oil and gas development will occur while quantifying the range of expected impacts to Teshekpuk Caribou Herd calving habitat and bird nests under the various alternatives considered during the previous IAP/EIS process.873 This information clearly demonstrated lower impacts to caribou and passerine birds under one alternative than under the other three.874 Preliminary findings from the model were used to help analyze impacts among alternatives in the 2013 IAP process.875 It was very surprising, then, that the method only received a single mention in regards to caribou876 and even more passing reference to birds.877 There was no apparent attempt to use such available methods, nor any discussion of why such methods were not attempted. This does not align with BLM's claim that BLM "has relied on the best available science to inform our consideration of the environmental impacts of BLM-managed activities in the NPR-A."878 This is especially the case because of concerns about the RFDS	*(see above)*

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(see above)	*(see above)*	*(see above)*	*(see above)*	156 *(cont.)*	*(see above)*	discussed earlier in these comments. It is unacceptable for BLM to have paid it so little attention in the DEIS to the approach of Wilson et al.,879 especially given its previous acceptance of the methods in the 2013 IAP. BLM should prepare its own similar analysis to more fully evaluate the potential impacts of the identified alternatives and assist in selecting a preferred alternative. We also are conducting our own quantitative analysis based on the approach of Wilson et al.880 -------- 870 1 DEIS at ES-6. 871 1 DEIS at 3-161. 872 Wilson et al. 2013. 873 Scoping Comment Letter. 874 Wilson et al. 2013. 875 See, e.g., 2 2012 IAP Final EIS at 194; 3 2012 IAP Final EIS at 274-275. 876 1 DEIS at 3-169. 877 1 DEIS at 3-141. 878 1 DEIS at 3-1. 879 Wilson et al. 2013. 880 Wilson et al. 2013.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	158	Terrestrial Mammals	Second, the estimated acreages covered by gravel roads and pads in the DEIS are likely underestimates of the true acreage of gravel development that would be present within the NPRA under each alternative. The DEIS reports these acreages for each alternative as part of the affected environment and environmental consequences for terrestrial mammals.884 These numbers are then related to acres within 4 km (2.49 miles) of infrastructure.885 Although not explicitly stated in the DEIS, this distance was undoubtedly chosen	Existing and proposed developments, such as Willow, were included in the cumulative effects analysis for the Draft IAP/EIS because they do not change from alternative to alternative. They were excluded from the RFD scenario to provide readers and decision-makers with a better basis for comparison of the alternatives.

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(see above)	*(see above)*	*(see above)*	*(see above)*	158 *(cont.)*	*(see above)*	to reflect caribou calving displacement for the CAH. It is then disturbing that the estimated acreages underlying these calculations are underrepresenting the true expected gravel footprint. Because the gravel impacts are underestimated, it follows that the overall impacts are underestimated. One aspect leading to this underestimation is a failure to account for existing and proposed development. CD5, GMT-1 and GMT-2 all have gravel footprints within the NPR-A boundary and so should be included in the total estimated gravel footprint. Similarly, the Willow project is treated in the DEIS as if it were existing; while it is not, it is reasonably foreseeable and should be considered as part of the total gravel footprint. Including these features would likely increase the expected acreage of gravel substantially, with resulting impacts on the area within 4 km of infrastructure. --------- 884 E.g., 1 DEIS at 3-162, 3-172, 3-174, 3-175. 885 E.g., 1 DEIS at 3-172.	*(see above)*
Donahey	Leah	Alaska Wilderness League	29320	181	Terrestrial Mammals	The EIS must address the significant potential impacts of seismic exploration and other winter activities on muskox in the NPR-A and explain how inflicting those impacts on this small population will be consistent with the goal of conserving muskox.	Muskoxen rarely occur in the northeastern NPR-A and are therefore unlikely to be impacted by winter activities in the NPR-A. The potential impacts of seismic activity on muskoxen is included in the Final IAP/EIS.

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Donahey	Leah	Alaska Wilderness League	29320	159	Terrestrial Mammals	Another factor leading to an underestimation of the acreages covered by gravel roads and pads in the DEIS is the failure to adequately account for connecting roads. The estimated ratio between the gravel footprint and area within 4 km of development used in the DEIS was taken from the Arctic Refuge coastal plain anchor field schematic.886 While this schematic included an access road between the anchor field and its associated seawater treatment plant, this was based on distances on the narrow coastal plain of the Arctic National Wildlife Refuge. The coastal plain is much deeper in the NPR-A and distances of access roads may need to be much longer than the 30 miles included in the Arctic Refuge-based schematic. Furthermore, the Arctic Refuge schematic displayed a single anchor facility. The DEIS points out that “[o]perators on the North Slope have found that roadless developments present operational and logistical difficulties, so future developments are expected to be connected by gravel roads in most cases.”887 This implies connector roads between anchor facilities. These do not appear to be accounted for in the DEIS calculations of gravel acreages nor the resulting acres within 4 km of development. This should be updated in the FEIS, along with inclusion of acreages from existing and planned developments, to better account for expected impacts to caribou. ------- 886 1 DEIS at 3-162. 887 2 DEIS at B-7.	Based on the geology of the NPR-A, most oil development is likely to occur relatively near the coast.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	168	Terrestrial Mammals	Unique among any of the alternatives, Alternative B adds a minimum 10 year leasing deferral along the easternmost portion of the NPR-A. The environmental consequences summary indicates that this deferral would limit impacts in an area used by both the Teshekpuk Caribou Herd and CAH.935 We support the general concept of the lease deferral, however in practice its protections for caribou are likely to be minimal. The vast majority of the deferred area is already leased, especially in the areas most heavily used by caribou. As such, it will not be subject to deferral limitations. Claiming that this deferral will convey protections to caribou is an overstatement and should be revised in the FEIS.	The Final IAP/EIS was revised to calculate the area in the lease deferral area that is currently leased.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	173	Terrestrial Mammals	Permanent construction of oil and gas facilities in important habitat for various species will fragment this habitat, altering normal movement patterns, potentially displacing mammals from preferred habitats and, for some species, attracting individual animals and creating potential negative interactions with humans. The DEIS characterizes this permanent habitat fragmentation permitted over a majority of the Reserve as "local" the reasonably foreseeable development scenarios described in the "Medium" and "High" theoretical scenarios would result in permanent infrastructure spanning hundreds of miles. For some species, especially smaller mammals, this sprawl could easily exceed the entire range of an individual or population. And the disturbance and displacement impacts for larger mammals could cover a spatial and temporal scale that inhibits critical life functions at a population level. The DEIS does not explore this type of impact to other terrestrial mammals.	The Final IAP/EIS has been updated to describe habitat fragmentation is local and regional to better address the fact that fragmentation could occur over a large area of NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	174	Terrestrial Mammals	Brown bears den during the winter and can be disturbed by noise. ROP C-1 requires a 0.5 mile buffer around occupied brown bear dens identified by the Alaska Department of Fish and Game (ADF&G). But the DEIS sets forth no basis for this buffer to ensure that it is sufficiently protective, and no information to indicate what distance from an occupied brown bear den is safe for seismic activity, construction, blasting, or other winter activities to operate without disturbing the denning bears.948 It notes that seismic operations are known to have disturbed denning wolverines, but the meaning of this observation is not further explored. There is virtually no further discussion of the impacts of seismic exploration on carnivores in the NPR-A. BLM must assess these impacts or acknowledge that they are not well understood, and seek to learn more through monitoring or research activities.	Reynolds et al. (1985) studied the heart rate and temperature of denning grizzly bears during seismic activity (using older technology) within 0.8 km. They found that "even if animals responded to noises associated with seismic exploration activities, effects on bears were probably minimal." One bear likely left the den in response to a seismic line within 200 meters of the den, but another did not leave the den in response to a seismic line within 100 meters. Not all den locations will be known, however, so some denning bears could be disturbed. (Reynolds, P. E., H. V. Reynolds, and E. H. Follmann. 1985. "Responses of grizzly bears to seismic surveys in northern Alaska." *International Conference of Bear Research and Management* 6: 169–175.)

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	184	Terrestrial Mammals	Increased human presence and access to the region due to an increase of roads will likely lead to increased hunting and poaching of muskox. Hunting pressure has increased in other areas inhabited by muskox and have had potentially significant impacts on abundance. Not only does hunting cause direct mortality, but the targeting of males for trophies can decrease the resiliency of whole herds.983 Males play a significant role in defensive behavior versus predators. The loss of males can lead to increased calf losses. The presence of humans cause general disturbance, and energy-depleting responses as described above. Oil and gas development will increase helicopter and plane traffic, road traffic, and off-highway vehicle use.984 The DEIS fails to assess the impacts of each of these activities on muskoxen.	Muskoxen currently are rare in the NPR-A, especially in northeastern NPR-A, where development is most likely. The effect of aircraft and seismic activity on muskoxen is discussed. The harvest of muskoxen is regulated by the Alaska Department of Fish and Game, but the Final IAP/EIS was updated to include the potential for the illegal harvest of terrestrial mammals.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	101	Terrestrial Mammals	Page 3-164 Last Paragraph Ice road and pad displacement of terrestrial mammals BLM states, "Vegetation damage from future ice-road and ice-pad construction could reduce the abundance and quality of forage for terrestrial mammals, particularly caribou...The use of ice-roads and ice-pads could result in disturbance and displacement of terrestrial mammals during the winter. These effects are likely to be similar to effects of seismic lines.." There is no citation or documentation to support these statements related to vegetation impacts from ice roads causing displacement of terrestrial mammals.	The IAP/EIS does not say that the vegetation damage from ice roads will cause displacement of terrestrial mammals. The IAP/EIS discusses the potential for the use of ice roads during winter to result in some displacement of caribou near ice roads during winter. The IAP/EIS discusses literature on caribou displacement from seismic activity, and activity on ice roads is likely to have a similar result.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	102	Terrestrial Mammals	Page 3-167 Last paragraph and carried over to the next page Discussion of the Red Dog Mine study and the Wilson et al. 2016 paper ConocoPhillips disagrees with BLM's characterization of the results of the Wilson et al. 2016 paper on page 3-167. BLM also cited this paper in the GMT2 EIS, on page 352 of Volume 1, but noted that 60% of the collared caribou crossed the road without incident or perceptible change. Additionally, members of the Teshekpuk Caribou Herd were unaffected by the road in this study, and the authors of the study postulate that the Teshekpuk Caribou Herd has a greater exposure to industrial development. BLM cautions that the application of this study's result is context-dependent. A close examination of the paper notes that only 15% of the total sample of collared animals (i.e., 32 of the 216 caribou) were in the vicinity (within 15km) of the road during their collared time period, so it's incorrect to say that 30% of the collared caribou had delays crossing the Red Dog Mine Road (in reality it was 3%). The “slow crossers” apparently impacted by the road all occurred in one year of the study (8 animals). Given the caveats, this study does not provide a strong analysis of possible delays or deflections for caribou.	The Final IAP/EIS was updated to indicate that the “slow crossers” were all from the Western Arctic Herd, that all occurred in one year, and that only a portion of collared caribou came within 15 km of Red Dog Road.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	103	Terrestrial Mammals	Page 3-168 Paragraph 3 Low level aircraft may cause flight responses or temporary changes in caribou behavior The Maier et al. 1998 paper that BLM cites was a study of low-altitude military jet aircraft, which is not analogous to aircraft in the NPRA. Additionally, the Reimers and Colman (2006) paper states “In most cases, energetic implications appear moderate and small compared to other natural, biotic influences such as disturbance (and death) caused by insect and/or predator harassment.” The Reimers and Colman assessment is a significant contrast to the IAP/EIS statement, “Low-level aircraft may cause flight responses or temporary changes in caribou behavior”, which cites the study. In other words, the BLM seems to inflate the impact of aircraft and disregard the observed greater impact of natural disturbances from insects and predators.	The Final IAP/EIS has been updated to include Reimers and Colman (2006) on energetic impacts. However, stating that “Low-level aircraft may cause flight responses or temporary changes in caribou behavior” is not inconsistent with this finding. Human activity can cause a change in caribou behavior, but because caribou have a low energetic cost of locomotion, if the disturbance is not frequent, it may not result in substantial energetic impacts (Murphy et al. 2000). Although military overflights are not comparable to aircraft typically in NPR-A, Maier et al. (1998) provide information on seasonal differences in aircraft disturbance, and Lawler et al. (2005) report mild impacts, even with military jets.
Watkins	Doug	East Asian - Australasian Flyway Partnership Secretariat	27444	2	Terrestrial Mammals	Construction of roads or other infrastructure might; 1) allow public and hunter access to areas currently difficult to reach, 2) attract natural predators that use these structures to reproduce and prey upon avian and mammalian prey, and 3) detract avian and mammalian species from the area. Each of these impacts will disturb wildlife, impair habitats, or lead to lower adult survival and productivity.	The IAP/EIS discusses increased hunter access, potential impacts on mammalian predators, and avoidance of active roads by mammal species.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Maupin	Siqiniq	Fairbanks	27316	4	Terrestrial Mammals	I'm talking about the cumulative -- I think any answer to any of those that you just stated, but the -- the overall change of migration of the Arctic herd, the Teshekpuk herd, the Western Arctic herd, the -- I mean, I don't know if any migration routes haven't been changed. And I'm wondering if you know why these migration routes have changed. And I know that might be an overwhelming question, but as we can see, when you affect one area, it can have a ripple effect across the state.	Some migrations of caribou or reindeer have been disrupted by roads with very high levels of traffic, but several Alaska herds (Central Arctic, Nelchina, and Fortymile) repeatedly cross roads during normal migratory movements. Several examples, including the effect of the Red Dog road on Western Arctic Herd fall migration, are discussed in the IAP/EIS.
Maupin	Siqiniq	Fairbanks	27316	4	Terrestrial Mammals	For the changing migration routes and many of the changing -- the ecosystem that's changing within the Arctic Slope, do you have any answers to why they've changed so significantly in the past 20 years? And do you feel that oil and gas has significantly impacted the migration of the animals that normally would have gone in herds of thousands through Nuiqsut, which do not go through there anymore?	Caribou distribution and movements are impacted by weather conditions during certain seasons, so climate change is likely to have some impacts on seasonal movements. Climate change impacts and interannual variability could make it more difficult to identify changes due to development. Nuiqsut is located between caribou ranges, and use of the Colville Delta by large numbers of caribou occurs periodically during midsummer, likely influenced by wind direction. Because of the episodic use of the area, it is difficult to determine if the frequency of occurrence has changed over time.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	8	Terrestrial Mammals	in areas that have been completely off limits to leasing and most surface activities for nearly 20 years, BLM promised to perform studies and gather data prior to any leasing in order to ensure that oil and gas leasing and development would not have an unreasonable impact on birds and caribou. As of the 2012-13 planning process. there were no studies supporting that conclusion, so those areas remained unavailable for leasing and most surface activities. 16 16 As the North Slope Borough, a cooperating agency in the 2012-13 IAP/EIS process, noted in its scoping letter at the start of that process: The areas closed under the existing (2008) management plans should remain closed. We are not aware of significant new wildlife or subsistence data, or industry technologies and practices that have been reported since the existing plans were adopted that would justify opening areas that are now closed to leasing or surface facilities. It was rightly determined after significant consultation and analysis leading to adoption of the existing plans that no package of mitigation measures could provide appropriate protection within the areas left closed to leasing or to surface facilities. Furthermore, newly recognized but poorly understood stresses arising from climate change only amplify the need for the wildlife resources dependent on these areas to be protected from the impacts of oil and gas activities.	Secretarial Order 3352 directed the development of a schedule to "effectuate the lawful review and development of a revised IAP for the NPR-A that strikes an appropriate balance of promoting development while protecting surface resources." According to the 2008 ROD for the Northeast NPR-A IAP, the purpose of the 10-year leasing deferral and associated studies for the area north and east of Teshekpuk Lake was to determine the best way to develop that area. The BLM and cooperating agencies designed the alternatives to cover a broad range, from a development oriented plan, Alternative D, to a more conservation oriented plan, Alternative B.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	9	Terrestrial Mammals	the post-2012 studies cited in the Draft EIS show a slight expansion of calving grounds to the west (but notably, not a shift away from the east}, confirms that vehicle traffic is highly disruptive to caribou migration, and provides additional detail on the delays that infrastructure can have on the Teshekpuk and Western Arctic Herds.17 17 See 2019 NPR-A IAP DEIS, pp. 3-168-70. That information doesn't support a change in management strategy; quite the opposite. If anything, the more recent deflection and delay data (from Wilson et al. {2016) in particular), have proven what local stakeholders have been telling BLM and other agencies for decades: oil and gas infrastructure interferes with normal caribou behavior-especially maternal and calving animals-by causing them to avoid or delay passing through or entering an area where the infrastructure is located.18 In fact. one of the few post-2012 studies cited in the Draft EIS showed that 30% of collared females (WAH and Teshekpuk Caribou Herd) delayed crossing an industrial road for an average of 30 days.19 The consequences of a delay like that on the overall health of the herd would be enormous considering how short the windows for calving, insect relief, and feeding prior to winter are. If 30% of migrating females delayed entering their preferred calving grounds for a month, those females would almost certainly	Various studies indicate different effects of roads on caribou movements. The differences may be due to traffic levels, caribou motivation to cross, road design, amount of human activity, or other factors. The Central Arctic, Nelchina, and Fortymile herds all cross roads during portions of their annual movements. The western segment of the Central Arctic Herd crosses roads frequently during midsummer movements. As noted in the DEIS, the potential for hunting on roads in the NPR-A is one difference from the Central Arctic Herd experience. Carroll (1997) did report that caribou that were outside the Teshekpuk Lake area during calving had a lower number of calves in late June (1 caribou in 13) than caribou that were near Teshekpuk Lake during calving (6 caribou in 8). While this could indicate lower calf survival if caribou calve outside of the Teshekpuk Lake area, caribou that do not calve are also less likely to be in the Teshekpuk Lake area during calving (Carroll et al. 2005; Person et al. 2007), and these 13 caribou included some number of non-calving caribou. Carroll et al. (2005) reported a low (50%) calving rate in 1997. In addition, Teshekpuk Herd caribou typically calve farther south in years of late snowmelt (Carroll et al. 2005), and late snowmelt may also decrease calf survival. Carroll et al. (2005) discuss the reasons for the low calving success in 1997, as follows: “The low calf percentages during these 2 years may have been partially due to poor perinatal calf survival resulting from the unusually long

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(see above)	*(see above)*	*(see above)*	*(see above)*	9 *(cont.)*	*(see above)*	end up calving outside their preferred areas. The 1997 ADF&G study suggests this could prevent around 90% of those delayed females from successfully reproducing.20 In other words, deflection could prevent around 27% of Teshekpuk Caribou Herd animals from calving successfully each year (in addition to natural variability within the herd). A few years of that would dramatically reduce the population. 18 See, e.g., 2019 NPR-A IAP DEIS, p. 3-170 (maternal caribou avoid active infrastructure by about 2.5 miles and are delayed and deflected by roads and pipelines). 19 2019 NPR-A IAP DEIS, p. 3-167 (collared females delayed by 30 days). 20 According to the 1997 Alaska Department of Fish and Game Caribou Survey-Inventory, the calving success rate for animals that calved outside the TLCH's traditional calving grounds was poor-only 8%. In the same year, calving success for the animals that did calve in the traditional calving grounds was 75%. G.M. Carroll, Management Report of Survey-Inventory Activities, M.V. Hicks (editor). That's an enormous difference that over time would almost certainly cause herd size to drop dramatically. Curiously, the Draft doesn't reach many conclusions that specific. Instead, it summarizes some conclusions from various studies and provides individual data points, but doesn't often use the information to	migration in 1997; adverse snow conditions in 2001; and, possibly, because some parturient cows were hindered from getting to the preferred calving area. The condition of cows during the previous fall would have also had a substantial, but unknown, effect on the productivity of the herd" (Person, B. T., A. K. Prichard, G. M. Carroll, D. A. Yokel, R. S. Suydam, and J. C. George. 2007. "Distribution and movements of the Teshekpuk caribou herd, 1990–2005: Prior to oil and gas development." *Arctic* 60: 238–250.; Carroll, G. M., L. S. Parrett, C. George, and D. A. Yokel. 2005. "Calving distribution of the Teshekpuk Caribou Herd, 1994–2003." *Rangifer Special Issue* 16: 27–35.]

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(see above)	*(see above)*	*(see above)*	*(see above)*	9 *(cont.)*	*(see above)*	synthesize meaningful conclusions about the impacts of development. Instead of tying together multiple studies to try to estimate specific impacts (as in the previous paragraph, for example), the Draft generalizes and avoids predicting anything specific.21 Nevertheless, even the generalizations show that the risks are real: 21 See, e.g., 2019 NPR-A IAP DEIS, p. 3-169 ("Displacement from these areas would therefore presumably lead to use of less preferred calving areas, but the demographic impacts of this are difficult to predict.").	*(see above)*
NAVARRETTE	Rikki	Kuukpik Corporation	29284	26	Terrestrial Mammals	Table 3-29 (p. 3-161) epitomizes how a significantly shortened EIS relies on such brief summaries that they end up having very little value. Table 3-29 lists twenty-one "potential effects" that various phases of oil and gas operations have on terrestrial mammals, mostly caribou. Next to each potential effect (such as "Habitat loss from gravel fill placement"), the table describes in one word the "type, context, and duration" of each impact. "Habitat loss from gravel fill placement", for example, is described as having "Adverse, Site specific, and Long-term" impacts. These descriptors are not defined, so readers have to decide for themselves whether a term like "long-term" means a season, a year, or thirty years.	The Final IAP/EIS was updated to include descriptions of the terms used.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	59	Terrestrial Mammals	A warming Arctic is almost certain to put significant strain on caribou and other animals as they adapt to new forage patterns, changing seasons, increased insect harassment and even new species.44 These are changes that could have massive impacts on animals and subsistence users alike, but which neither we nor BLM can control. Instead of choosing to add to those risks by adopting an aggressive leasing and development plan, BLM should control the things it can in order to help hedge against the things it can't-like limiting development in areas that are critical now while we learn more about the impacts of climate change over time. 44 These types of changes are yet another reason BLM cannot continue to rely on older studies and EISs. Seasons and migration timing have changed or grown more unpredictable even over the last 5-10 years. Data collected as far back as the 90s and even 2000s may be of questionable value at this point, or at least is not definitively correct. Table T-12, for example, should be reviewed and updated given how old most of that seasonal data is.	Caribou collar locations through 2019 were included in the analyses. The IAP/EIS discusses impacts of climate change and how it may result in negative impacts that will make predicting impacts from development more difficult. Table T-12 in Appendix T is based on the most recent available timing data for each resource (see last column, "Most Recent Decade for Subsistence Activity/Harvest Data"). Most subsistence studies in Nuiqsut (except for the Nuiqsut Caribou Subsistence Monitoring Project) that provide data on the timing of activities occurred prior to 2010. The BLM reviewed the text to ensure that the table is updated with the most recent data and revised it, as appropriate.

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NAVARRETTE	Rikki	Kuukpik Corporation	29284	11	Terrestrial Mammals	Alternative C proposes to pre-approve eventual designation of a pipeline corridor in the narrow strip of land between Teshekpuk Lake and Harrison Bay. Alternative B would pre-approve an additional eventual pipeline west of the lake, presumably in or around the narrow strip of land between the lake and Smith Bay. But both strips of land are critical habitat areas. Nearly all the parturient cows pass through them either shortly before or after calving, often multiple times.23 Both narrow areas effectively serve as natural “funnels” for huge numbers of caribou migrating to the coast. Allowing caribou to pass freely through these areas is therefore vital. 23 2012 FEIS, Vol. 2, p. 192 (citing Person et al. 2007). We question whether any pipeline could safely be built through these migration corridors. After all, we are talking about the migration path of tens of thousands of caribou. These routes and the calving grounds east of Teshekpuk Lake have been used for thousands of years. They are the only areas where we know Teshekpuk Caribou Herd animals can successfully reproduce year after year. But as we've seen already, a pipeline is likely to interfere with calving patterns, potentially forcing these animals to go somewhere else. The problem is there may not be enough other places for them to go and be successful. The eastern calving corridor in particular is very small;	This plan makes no decision regarding the exact location of such corridors, and potential corridors on maps are shown for representational purposes only. Specific pipelines will be analyzed in subsequent NEPA analyses when a pipeline project is proposed, and consultation with affected stakeholders will occur at that time. A pipeline corridor would be placed where it will have the least impact on surface resources and will be permitted with appropriate mitigation measures.

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(see above)	*(see above)*	*(see above)*	*(see above)*	11 *(cont.)*	*(see above)*	small enough in fact that it's somewhat remarkable there's even enough room and forage habitat for the entire herd, especially during insect relief season when nearly all the animals are in or passing through the north and eastern sides of the lake.24 A pipeline in this area could therefore have far greater impacts than it would elsewhere simply because there's a limited amount of space where animals could relocate to and no guarantee that the areas they find will be able to support the herd to the degree required. 24 See 2019 NPR-A IAP DEIS, Appx. Y, p. Y-49: "Even the caribou know that their calves have a better chance of surviving if they can just get to the narrow corridor to the east of[Teshekpuk] Lake. The Teshekpuk caribou herd somehow gets enough sustenance from this area to winter in the North Slope, unlike other Arctic caribou herds that head south. It is from this herd that the Inupiat who live here get the majority of their year's supply of tuttu meat. (Utqiagvik) (BLM 2004c)".	*(see above)*
NAVARRETTE	Rikki	Kuukpik Corporation	29284	12	Terrestrial Mammals	Although the Draft acknowledges how disruptive pipelines can be to migrating caribou, it tries to reassure the reader that "infrastructure is not expected to divert caribou migration altogether".27 But is that really the bar we're trying to meet here-not altogether diverting the migration? It doesn't take a complete deflection to create serious	Based on studies of the Central Arctic Herd, caribou are generally able to cross properly elevated pipelines, especially if the pipelines are not associated with a road, although some delays and deflections may occur (Lawhead et al. 2006). The literature on caribou road crossings indicates varying responses in different situations. Roads with very heavy traffic levels can form barriers

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(see above)	*(see above)*	*(see above)*	*(see above)*	12 *(cont.)*	*(see above)*	negative consequences for the long-term health ofthe herd and the subsistence hunters that depend on it. As explained throughout this letter (and the Draft EIS), partial deflections and significant delays can drastically reduce calving success, leave adults weak and less likely to survive a winter, and affect subsistence opportunities. In short, a pipeline through the Teshekpuk Herd's key habitat could be devastating even if doesn't "divert caribou migration altogether". The bar simply has to be higher than that. 27 2019 NPR-A IAP DEIS, p. 3-241.	to movement, and the Red Dog Road appeared to significantly delay the migration of about 30% of collared caribou in the area (all delayed caribou were from the Western Arctic Herd in one year; Wilson et al. 2016). Panzacchi et al. (2013) found that a road delayed migration during spring when there was high human activity but not during fall. Central Arctic Caribou cross oilfield roads frequently during midsummer and often cross the Dalton Highway during migratory movements. The Nelchina Herd crosses rural highways during annual migrations. Short alterations in movements are unlikely to result in substantial energetic impacts for caribou (Murphy et al. 2000; Reimers and Colman 2006), but hindering access to seasonal ranges could have large impacts. The IAP/EIS discusses these potential impacts. (Lawhead, B. E., J. P. Parrett, A. K. Prichard, and D. A. Yokel. 2006. A literature Review and Synthesis on the Effect of Pipeline Height on Caribou Crossing Success. BLM Alaska Open File Report 106. BLM/AK/ST-06/016+6501+020; Wilson, R. R., L. S. Parrett, K. Joly, and J. R. Dau. 2016. "Effects of roads on individual caribou movements during migration." *Biological Conservation* 195: 2–8; Reimers, E. and J. E. Colman. 2006. "Reindeer and caribou (*Rangifer tarandus*) response towards human activities." *Rangifer* 26(2): 55–71; Panzacchi, M., B. Van Moorter, and O. Strand. 2013. "A road in the middle of one of the last wild reindeer migration routes in Norway: Crossing behaviour and threats to

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	12 *(cont.)*	*(see above)*	*(see above)*	conservation." *Rangifer* 33: 15–26; Murphy, S. M., D. E. Russell, and R. G. White. 2000. "Modeling energetic and demographic consequences of caribou interactions with oil development in the Arctic." *Rangifer Special Issue* 12: 107–109]
Adams	Jim	National Parks Conservation Association	29262	8	Terrestrial Mammals	The DEIS claims to make "no decisions on opening lands to hard rock or coal mining," but also does not prohibit permitting of infrastructure to support mining on lands owned by other entities, such as in this case. While no explanation is given for why the southernmost portion of the Utukok River Uplands Special Area is opened to leasing in the DEIS, especially in light of the repeated statement that "[o]il and gas development is not expected in this area," the decision has the effect of removing infrastructure and leasing prohibitions in areas of potential coal and other minerals. The BLM must clarify in the FEIS why these areas have been opened, as well as explicitly discuss the potential for hard rock or coal mining on non-Federal lands and its potential impacts for caribou.	The NPRPA prohibits hard rock mining within the NPR-A. However, this prohibition applies only to land managed by the BLM. Private property owners are not governed by the NPRPA.

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Adams	Jim	National Parks Conservation Association	29262	3	Terrestrial Mammals	We ask BLM to revisit its analysis and process and ultimately to protect the WACH and the communities that rely on it by maintaining the strongest possible protections for the Utukok River Uplands Special Area, by prohibiting all infrastructure development in the WACH calving grounds, and by limiting development wherever the WACH winters within the NPR-A.	Portions of the Utukok River Uplands Special Area were opened to infrastructure and leasing under Alternatives C and D at the request of stakeholders during scoping. The BLM is required to consider this as part of a broad range of alternatives.
Adams	Jim	National Parks Conservation Association	29262	5	Terrestrial Mammals	The FEIS needs to be updated to be clearer about the risks to WACH calving if development occurs in the southwestern NPR-A.	The Final IAP/EIS was updated to indicate that, while oil and gas activity is not expected in this area, other activity, including community infrastructure, is possible.
Henry	Lupita	Point Lay	27301	3	Terrestrial Mammals	It's not so much finding the water. It's the quality of the water that they're drinking out there. These are what we subsist off of, and, you know, if they're getting sick out there because of the water, who really is the one that just tells us if it's just the State of Alaska?	The NPRPA requires the BLM to protect important surface resources. Surface resources will be protected through ROPs for permittees. Additional ROPs may apply in sensitive areas.
Henry	Lupita	Point Lay	27301	2	Terrestrial Mammals	What about water rights for caribou? Where do they seasonally group to go get their water?	The NPRPA requires the BLM to protect important surface resources. Surface resources will be protected through ROPs for permittees. Additional ROPs may apply in sensitive areas.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Henry	Lupita	Point Lay	27301	5	Terrestrial Mammals	They have big BM trucks that go back and forth on that road all the time, and it makes it hard for them to subsistence hunt over there, and, you know, just hearing that makes me think of as sort of a corral for the caribou that what is BLM and what are the contractors going to do in the event that you get 2,000 caribou stuck in this one area closed off by the roads. What is the mitigation time going to be to exercise our subsistence rights to hunt those caribou if we can't even mitigate those caribou out of that area?	Improperly planned roads can create “corrals” that can result in caribou having difficulty leaving an area (Johnson and Lawhead 2006). The road design of future developments will be assessed in future NEPA analyses. (Johnson, C. B., and B. E. Lawhead. 1989. Distribution, Movements, and Behavior of Caribou in the Kuparuk Oilfield, Summer 1988. Unpublished report prepared for ARCO Alaska, Inc., and the Kuparuk River Unit, Anchorage, Alaska, by Alaska Biological Research, Inc., Fairbanks, Alaska.) Potential impacts on subsistence resource availability, specifically caribou, resulting from road traffic are discussed in Section 3.4, Direct and Indirect Impacts (Noise, Traffic, and Human Activity).
Lampe	Warren	Point Lay	27308	1	Terrestrial Mammals	Water, land, people are the -- what are the animals that you're basing these studies off of, the restrictions off of? Is it just the caribou?	The stipulations and ROPs are designed to protect a wide range of surface resources, not just caribou.
Lampe	Warren	Point Lay	27308	2	Terrestrial Mammals	In this NPR-A, I would not like to see any new gravel roads to anywhere. They have directional drilling. Use directional drilling. But these gravel roads, I've seen impacts on the caribou herd that one road will stop their migration for up to 20 days, and in that 20-day period, where is that -- we're trying to hunt them while they're migrating, traveling back down south or traveling back up north.	The BLM is considering no surface occupancy stipulations in sensitive areas.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	9	Terrestrial Mammals	* BLM should confirm that the final analysis of impacts to caribou, particularly the Teshekpuk Lake Caribou Herd, is based in sound science and not assumptions. Within their analysis, BLM should be sure to include information about the Central Arctic Caribou Herd and its proliferation in the presence of industry. The Central Arctic Caribou herd calves in the heart of the Prudhoe Bay, and as the data indicates, mitigation measures and balanced land management have been successful at managing this resource in the presence of resource development for over 40 years. In the IAP, BLM states that the population and health of the Teshekpuk Lake Caribou Herd is stable and has even increased over the same period industry activity has increased in the NPR-A. Despite this data on both herds, BLM implies the health of the herd is in jeopardy. As BLM considers potential impacts to the Teshekpuk Lake Caribou Herd from resource development, they should not exclude the very real example of success on the other side of the Colville River, or the success of industry efforts to mitigate impacts to the Teshekpuk Lake Caribou Herd with development in the NPR-A to date. Alarmist statements about the potential demise of the Teshekpuk Lake Caribou Herd when the data does not demonstrate this has occurred to any degree is not constructive and not supported by science.	There has been limited development in the range of the Teshekpuk Caribou Herd and a greater amount of the activity has been in the eastern portion of its range. The growth of the Central Arctic Herd is described in the IAP/EIS. Following development in the range of the Central Arctic Herd, maternal caribou calved at lower densities near active roads and the area of highest density calving distribution for the western segment of the herd shifted south of areas of development (Murphy and Lawhead 2000). The impact of calving displacement and/or shift in the Teshekpuk Herd will depend on the availability of alternative calving areas and the forage quality and/or predator densities in these areas. (Murphy, S. M., and B. E. Lawhead. 2000. Chapter 4: "Caribou." Pp. 59–84. In: J. C. Truett and S. R. Johnson, eds. *The Natural History of an Arctic Oil-field: Development and the Biota*. Academic Press, San Diego, California.)

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	11	Terrestrial Mammals	Multiple times, the draft IAP/EIS points out that the authorized officer can stop traffic for up to four weeks in an attempt to reduce calving displacement (e.g., p.3-176). There is not a requirement to do so, however, raising questions about whether this possibility will ever be used. This provision already exists under the current IAP in BMP K-9 (p.2-35). We request that the final IAP/EIS include a record of how often BLM has actually taken action to stop traffic and what the duration of traffic cessation was for each action. If similar actions have been taken on State lands to the east this information should be included as well. Finally, any information about the effectiveness of such actions in terms of caribou crossings and unhindered movement should be reported. This information will provide a better estimation for the reader of the likelihood of effectiveness for this proposed protective measure.	The Final IAP/EIS has been updated to discuss the likelihood of traffic cessation under Stipulations K-9 and K-14.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	16	Terrestrial Mammals	We also reiterate the request made by the Working Group in scoping that no leasing, non-subsistence infrastructure, or activities associated with the development of coal bed methane should occur within key habitat of the WACH or Teshekpuk Caribou Herd and that mining remains prohibited in the revised IAP/EIS. These things should be made explicit in the final IAP/EIS. If a mine were to be developed in this area, it would likely require a road to get minerals out. As the DEIS notes, multiple studies have shown that caribou may experience delays crossing roads during migration, including studies of the nearby Red Dog Mine and associated Delong Mountain Transportation System (p.3-167 - 3-168). Placement of a road to the south of the WACH calving grounds, and in the midst of its migration route, could be disastrous. The draft IAP/EIS notes that "[i]f caribou experience long-term delays from their annual spring and fall migrations as a result of oil and gas and other non-oil and gas infrastructure, then they may arrive in traditional hunting areas later than expected or they may be diverted away from traditional hunting areas altogether, thus reducing resource availability for local hunters" (p.E-21). These effects would be felt not just by communities within the NPR-A, but across the entire range of the WACH.	Impacts of potential development in the Utukok River Uplands Special Area have been disclosed in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	17	Terrestrial Mammals	We appreciate BLM's efforts to reflect traditional knowledge in the descriptions of the affected environment and environmental consequences, such as including quotations from local community members of their observations regarding impacts of development and human activity on caribou (p.3-155 - 3-158, 3-163, 3-167, 3-171 - 3-172). We urge BLM to listen to this wisdom and to take it into account in making their decision regarding the IAP/EIS. For example, the comment that, "Nearly all of the parturient cows move north through the narrow corridor between Teshekpuk Lake and the Kogru River. It would be very difficult to have any development in this corridor without the risk of seriously affecting the population" (p.3-156) has strong implications for allowed pipeline corridors and community transportation roads under Alternatives B-D and reinforces the value of maintaining the protections in Alternative A.	Impacts of potential development in the Teshekpuk Lake Special Area have been disclosed in the Final IAP/EIS.
Cleveland	Vern	Western Arctic Caribou Herd Working Group	5652	10	Terrestrial Mammals	One of the management actions suggested in this plan is to ask agencies to consider the effects of climate change related to caribou when evaluating resource development projects. This is done to some degree in the draft IAP/EIS but could be strengthened. For example, the document recognizes that coastal erosion is a major force in northern Alaska, especially around Teshekpuk Lake (p.3-36). However, it does not take this into	The Final IAP/EIS was updated to include a discussion of coastal erosion in the area north of Teshekpuk Lake. Additional discussion of rain-on-snow was added.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	10 *(cont.)*	*(see above)*	account when considering the possible consequences of development within the narrow corridors on either side of Teshekpuk Lake permissible under Alternatives B-D. This should be done in the final IAP/EIS to better reflect the potential for constricting of caribou access under these alternatives. Furthermore, the cumulative impacts section acknowledges that "[l]arge predicted increases in the frequency of rain-on-snow events in the Arctic and other climate change impacts could cause large declines in caribou body condition in the spring, making caribou more susceptive to impacts from development" while also leading to more interaction with infrastructure and fewer options for wintering caribou (p.3-177). This is incredibly important, especially under Alternatives C and D, which would allow additional development in areas near Teshekpuk Lake used by the Teshekpuk Caribou Herd in the winter. These linkages need more robust discussion in the final IAP/EIS.	*(see above)*
Pourchot	Pat	–	29313	1	Terrestrial Mammals	The impacts of permitted development under Alternatives B, C, and D are woefully underestimated. In particular, the impacts of roads and pipelines on Teshekpuk caribou calving and migrating are downplayed, considering the findings of existing studies of such impacts on the Western Arctic Herd and the Central Alaska Herd.	The potential impacts of roads and pipelines on caribou are discussed, based on the available literature. A decline in calving density near roads has been consistently reported for the Central Arctic Herd. The literature on changes to migratory movement from road crossings is mixed, with some delays occurring during some seasons in some studies.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Reichardt	Paul	_	27861	2	Terrestrial Mammals	The document makes specific mention of the possibility that a pipeline just east of Teshekpuk Lake could hinder caribou movement and that careful placement would be needed (Vol, p.3-173). Given the importance of this area to the Teshekpuk Lake Caribou Herd, why is it necessary to risk interruption of its migration and travel by providing carte blanche authorization for corridors or complete elimination of restrictions on pipeline construction at this time? Why not wait until actual pipeline corridors are proposed? Why is BLM willing to cede responsibility for pipeline authorization within the NPR-A to the EPA?	This plan makes no decision regarding the exact location of such corridors, and potential corridors on maps are shown for representational purposes only. Specific pipelines will be analyzed in subsequent NEPA analyses when a pipeline project is proposed, and consultation with affected stakeholders will occur at that time. A pipeline corridor would be placed where it will have the least impact on surface resources and will be permitted with appropriate mitigation measures.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Wald	Michael	_	26042	1	Terrestrial Mammals	Alternatives fail to protect the Teshekpuk Herd and by extension subsistence rights. As has been shown in numerous studies in Alaska and around the Arctic a significant percentage of caribou show avoidance behavior in response to roads and pipelines. Allowing pipelines (Alternative B and additional development as in C and D) in the narrow corridor between Teshekpuk Lake and Dease Inlet to the west and Kogru to the east has the potential to limit the movements of the Teshekpuk Herd during vital portions of the year. The restriction of movement is especially concerning during calving when cows need to position themselves at the edge of snow-melt for optimum nutrition and during insect harassment when they need unfettered access to the coast to avoid bug but also need to be able to return inland quickly and without disturbance to feed when insects abate. The geography of Teshekpuk creates very narrow corridors for north and south movement. Oil and gas infrastructure in those corridors jeopardizes the herd. The EIS has failed to accurately account for these impacts or acknowledge the cascade of impacts that would result from population level declines of the herd. Adequate protections of the areas east and west of Teshekpuk must be provided to allow unhindered movement for the Teshekpuk Herd during all seasons	The importance of the narrow corridors on either side of Teshekpuk Lake are discussed in the IAP/EIS. The impact of road and pipelines on caribou varies widely by season. In the Central Arctic Herd, maternal caribou consistently avoid areas near active roads during calving, but caribou are highly motivated to cross infrastructure when mosquitoes are active. Central Arctic Herd caribou cross roads and pipelines frequently during midsummer, although delays and deflections can occur. When oestrid fly harassment is occurring, some Central Arctic Herd caribou use roads and areas under buildings and pipelines for fly relief habitat.

Z.3.45 Transportation

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	254	Transportation	The DEIS Ignores Differences in Future Project Sizes and Locations. The DEIS says that “Under all action alternatives, lease sales would likely result in an approximately equivalent number of gravel and ice roads, airstrips, fueling stations, and barge landing areas to support changes to oil and gas development within the NPR-A.”398 This assumption is questionable because the miles of gravel and ice roads would differ depending on the areas open to development and the amount of resulting development. BLM should analyze the impacts of a range of distances and acreages for gravel and ice roads. It is arbitrary for BLM to assume that there would be equivalent infrastructure under the different action alternatives; that assumption skews BLM's consideration of the potential impacts and differences between alternatives. -------- 398 1 DEIS at 3-301.	The following was added to Section 3.4.9, Visual Resources direct and indirect impacts: “All things being equal, adding any activity to undeveloped land results in more changes to the scenic quality of the landscape than adding that same activity to developed land.”

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Tuzroyluk	Sayers	Voice of the Arctic Inupiat	29289	8	Transportation	Roads The BLM should endeavor to look at this management regime not only through the lens of oil and gas development but also on a macro-level scale, how the IAP EIS can facilitate improvements in the quality of life and cost of living on the North Slope. For years, community members have advocated for an interconnected road system that could ease some of the burdens of living in rural, isolated communities. This infrastructure could reduce the cost and weather uncertainties associated with delivering goods to North Slope communities, facilitate the use of natural gas beyond Utqiagvik and Nuiqsut into other villages, provide an alternate means of entry and exit to communities, and provide an emergency evacuation route for communities threatened by erosion. We hope that the NPR-A IAP EIS will not hamper the potential of projects such as the Arctic Strategic Transportation and Resources (ASTAR) or the North Slope Borough's Community Winter Access Trails (CWAT) which aim to interconnect communities. VOICE supports the exemption for community infrastructure projects in the final EIS in areas that are subject to No Surface Occupancy stipulations but recommends that this infrastructure should be open for industry access as well. Allowing industry to utilize community roads could ease the burden of maintenance and repairs, as	The analysis in Impacts Common to All Alternatives in the Final IAP/EIS, Section 3.4.1, describes the ability of community infrastructure development, including planned roadways, to continue. It also states that new roadways for oil and gas development would not support public access or increase connective networks. The underlying assumption is that new roads accessing oil and gas infrastructure would be private.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	8 *(cont.)*	*(see above)*	companies would share those costs with the North Slope Borough or local municipality. Industry roads have provided access to hunters and made projects such as the CWAT feasible, partnerships between industry and communities to increase infrastructure can have far-reaching and long-lasting benefits for the region. VOICE prefers that these exemptions be expanded to allow community access through Special Areas as well to allow for communities outside of the NPR-A, such as Point Hope, on the west side of the Utukok River Uplands Special Area, to tie into this infrastructure. The BLM should also implement requirements to allow local communities access to industry roads for future developments in the NPR-A. Sharing road access has worked well in Greater Moose's Tooth (GMT) as it allows Nuiqsut hunters greater access for subsistence purposes. This is one way that impacts to communities can be offset, and VOICE feels that the BLM should make an effort to make this a Best Management Practice for all future projects.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Kenning	Erik	ASRC	29299	9	Transportation	As part of an overall North Slope transportation network, the Arctic Strategic Transportation and Resources (ASTAR) project must also be accounted for in this IAP process. This project would also benefit from a co-location of routes with the NSB's CWAT project and industry road networks. ASRC recommends that BLM have detailed discussions with the NSB and the State of Alaska on arctic overland transportation networks before excluding any type of the same infrastructure over another, possibly resulting in an unintended negative consequence for the NSB and State of Alaska's goal of better interconnection of the North Slope communities.	No part of this plan prohibits collocation of community infrastructure with industrial road networks.
Kenning	Erik	ASRC	29299	12	Transportation	In terms of access and transportation, the same alternatives could hinder development of valuable subsistence access to industry funded road networks, such as the access that the community of Nuiqsut is granted. ASRC supports the Alternative D option with respect to K-17.	Stipulation K-17 has been updated in the Final IAP/EIS.
Kenning	Erik	ASRC	29299	25	Transportation	aircraft restrictions and an aircraft use plans should be in place for all permitted users within the NPRA; to include environmental organizations, scientists, government entities and commercial recreational operators.	ROPs F-2 and F-3 applies to all permittees.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Lloyd	Rod	Atqasuk	27313	4	Transportation	Who controls the aircraft activity in these areas, I mean, in these -- these purple areas? Who takes care of aircraft activity? How do they -- how are we getting more and more airplanes flying in some of these areas all the time? So who kind of over watches that?	The BLM manages aircraft use by its permittees.
Obed	Sarah	Doyon, Limited	27862	4	Transportation	As part of this planning process, Doyon continues to believe that BLM should identify and designate one or more corridors across the NPR-A for the construction of transportation, energy, and other infrastructure on Federal land to support the development and needs of local communities and access to resources. Such corridors could facilitate the development of critically important infrastructure for local communities-including transportation facilities, pipelines, electricity transmission and distribution facilities, and other infrastructure-with significant benefits to the health, safety, welfare, and economies of communities in the region. This is particularly the case where areas may be closed to new infrastructure, or where activities may otherwise be subject to restrictive stipulations or other requirements, under the revised IAP. The Draft IAP/EIS, other than including one or two non-specific north-south pipeline corridors in two of the alternatives, does not appear to reflect any real effort to accomplish this. This should be remedied in the final IAP.	Under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and an analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Mayo	Gail	Fairbanks	27318	1	Transportation	So what Arctic Audubon would like to see is just what that will mean in the long run. An example of a major concern that I think we have is the infrastructure, the roads that cut across these wetlands, change the whole pattern of how the water moves with those wetlands. And, therefore, just by that simple change, affects everything that uses the wetlands, including the people that are wanting to use the road. A road is like -- building a road across a wetland is like building a dam, except they go in all different directions and they often don't pay any attention to where the water is going to go. So that would be a major concern that we would try to address and see if we could come up with any suggestions for mitigation.	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific locations. This plan makes no decision regarding the exact location of such infrastructure. Specific projects and mitigation will be analyzed in subsequent NEPA analyses when a project is proposed.
Smyth	Julie	Fairbanks	27327	2	Transportation	All right, my name is Julie Smyth. And my one question is, have you guys considered the ripple effects that this will leave outwards? Like, I know several people use that ice road to get up there, especially during the winter. Even my family uses it when they're trying to get back and forth, because it's cheaper than taking a plane. But I have heard people talk about how even the ice road, to get back and forth up there, is changing the migration of the different animals that my family normally hunts and uses --	The IAP/EIS considers the indirect impacts of roads on wildlife.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
NAVARRETTE	Rikki	Kuukpik Corporation	29284	4	Transportation	The Draft also opens the door to a large road project across NPR-A that would have far reaching consequences on Native communities. Kuukpik has long urged caution on the rush to build a road between Utqiagvik and Nuiqsut or the Dalton Highway. Kuukpik believes the benefits of such a road are mixed, at best, and the negative impacts potentially severe. The Draft confirms many of these concerns, doesn't describe many benefits, and yet still takes it as a forgone conclusion that such a road would or should ultimately be constructed. For the reasons described in more detail in this letter, Kuukpik believes that much more thought and consultation will be required before any such road is constructed.	An analysis of a road north of Teshekpuk Lake was included at the request of a cooperating agency. This plan makes no decisions about the routing of such a road, and any proposal would be subject to additional NEPA analysis. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and an analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
NAVARRETTE	Rikki	Kuukpik Corporation	29284	75	Transportation	The Draft also asserts that "The areas where new community infrastructure could be developed would be limited to areas that are closed to oil and gas leasing and development. In areas open to leasing with standard terms and conditions, the development of oil and gas infrastructure would limit the locations where community infrastructure could be developed." 2019 NPR-A IAP DEIS, p. 3-301. This statement should be explained further. Kuukpik does not understand why the road location is dictated by what areas are available for leasing. This also suggests that Alternative D might preclude a community road because no northern areas are closed to leasing under that alternative. We doubt that conclusion is correct, however, again suggesting some logical inconsistency and/or need for further clarification.	The Final IAP/EIS has been updated to clarify that once oil and gas infrastructure is in place, those areas would be unavailable for the placement of a roadway. Route planning for future roadways would need to take into account the locations of approved or constructed oil and gas infrastructure.
Fisher	Kevin	North Slope Borough	29290	48	Transportation	Draft IAP/EIS at 2-3. In describing the "decisions to be made," BLM states that the IAP/EIS "would also consider the potential for a road or other transportation system connecting communities across the North Slope." Id. at 1-1; see also ES-1. Community infrastructure projects are defined more broadly than roads or transportation systems. BLM should revise these statements to reflect the full scope of potential projects that could be permitted.	Under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. This exception would cover everything from small-scale projects, like communication towers, to wholesale community moves.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Hall	Marleanna	Resource Development Council for Alaska, Inc.	29288	11	Transportation	* Restrictions on aircraft use in the NPR-A and the requirement for industry to develop an Aircraft Use Plan should be extended to all users of the NPR-A, including government entities and environmental organizations. As a general comment, by standardizing the requirements placed on industry for all users BLM can manage potential impacts more comprehensively.	ROP A-10 has been updated in the Final IAP/EIS.
Little	Suzanne	The Pew Charitable Trusts	26136	12	Transportation	The direct as well as long-term impact of new gravel (four season) road construction in the NPR-A is of special concern. Roads can have direct and substantial impacts on biological resources at critical life stages - especially calving caribou and molting geese - and that oil field infrastructure generally displaces subsistence use. The creation of new public roads that could introduce increased competitive harvest pressure on subsistence resources is also a special concern that threatens the food security of remote communities. Close coordination with residents, hunters and the North Slope Borough regarding placement of four-season roads should be required in the IAP. BLM should consider the community priorities identified by Utqiagvik, Wainwright, Atqasuk, Nuiqsut, Point Lay, Point Hope, Kaktovik and Anaktuvuk Pass as part of the Arctic Strategic Transportation and Resources project.	The subsistence analysis addresses the potential impacts of increased road development within the NPR-A, including increased competition and harvest pressure, on subsistence users. ROPs E-1, H-1, H-2, and H-4 require permittees to consult with local communities on their proposed projects.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Shively	John	_	27901	1	Transportation	The IAP should allow for a year-round road system to connect local communities within NPR-A.	Under all action alternatives, community infrastructure can potentially be permitted anywhere in the NPR-A. Permits for community infrastructure would be authorized on a case-by-case basis and would be subject to site-specific NEPA analysis, including a consideration of alternatives and an analysis of impacts from those alternatives. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Additionally, any permitted community infrastructure project would be subject to the ROPs listed in the action alternatives.

Z.3.46 Unavoidable Adverse Effects

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Itta	Martha	Native Village of Nuiqsut Tribal Council	29316	30	Unavoidable Adverse Effects	The encroachment of GMT-1 and GMT-2 into Fish Creek, an area identified for its very high subsistence importance, exemplifies BLM's lack of commitment to effectively avoiding irreplaceable areas. Through ice roads and permanent infrastructure, the Willow project will further compromise this area. BLM must take steps to ensure that areas of traditional and cultural importance are protected from the impacts of development. Unavoidable impacts of development projects within the NPR-A must be accurately quantified and effectively offset through compensatory mitigation actions. The community is increasingly surrounded by oil development, and the impacts of oil and gas development on Nuiqsut are significant. BLM's EIS must comprehensively describe and quantify impacts so they can be offset through improved land stewardship and community development actions.	Except as required by law, BLM policy prohibits imposing compensatory mitigation on public land users. Subsidizing subsistence users would fall under compensatory mitigation.

Z.3.47 Vegetation

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	72	Vegetation	Page #: 3-85 Table or figure: Reviewer Name/Agency: ADEC Comment: Paragraph two on this page notes that there have been no updates to the area potentially affected by ice roads, pad and airstrips from those proposed in the 2013 EIS, and the 2013 number are assumed to apply to all current activities. It is not clear how this can be true given that the areas proposed to be opened for leasing in Alternative D appears to have increased. Suggestion if applicable: Please explain how this can be true.	The Final IAP/EIS was updated to clarify that alternatives with larger areas open to exploration have a wider choice of locations where this type of infrastructure could be placed, but the total area impacted would be the same for all alternatives.
Schell	John	ConocoPhillips Alaska	29272	71	Vegetation	Page 3-85 Paragraph 2 Refers to old seismic practices (e.g., studies of seismic surveys of 1984- 1985 performed in ANWR 1002) The last sentence of paragraph 1 is erroneous: “there has been relatively little change”. There have been many changes made in equipment for seismic survey equipment and camp transit. Old equipment/camp facilities were trailers on tracks, which were heavy and could damage tundra. New equipment/camp facility trailers are all on skis, which significantly reduce ground surface impact. Perhaps the most significant improvement over 1980's methods is replacement of the heavy steel track dozers that used to pull the equipment/camp facilities with rubber tracked vehicles, such as Steigers. Furthermore, newer-built camp facility trailers are lighter in weight,	The Final IAP/EIS has been updated to encompass modern seismic techniques.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	71 *(cont.)*	*(see above)*	which also reduces ground surface impact. BLM should reconsider the approach to analyses of impact from seismic survey; it seems all instances of impact analysis in the DEIS refer to studies or observations of seismic surveys conducted in the 1980's in ANWR or cite "local knowledge" as actual impact. Seismic survey technology and practices have greatly improved since the 1980's and this information should be reflected in the EIS.	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	72	Vegetation	Page 3-85 Paragraph 3 Construction of airstrips Airstrips supporting exploration and seismic activities are predominantly constructed on lakes, therefore not damaging to vegetation.	The Final IAP/EIS was updated to clarify that there will likely be no impacts on tundra from airstrips.
Henry	Lupita	Point Lay	27301	8	Vegetation	Is there a study on vegetation in the area?	The IAP/EIS vegetation section mentions several studies and maps of vegetation types in the planning area.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Senner	Stanley	–	27093	9	Vegetation	p. 3-89 DEIS: "In the Pik Dunes BSA, operators would be required to conduct a plant survey prior to constructing an ice pad, and to avoid construction where special status plant species are identified. No such requirement applies under Alternative A." Comment: Pik Dunes has not received much attention compared to other parts of NPR-A, such as the area around Teshekpuk Lake, and there is need for a full biological, botanical and geological reconnaissance in advance of any decisions other than to close the area to leasing, surface infrastructure or occupancy, and sand and gravel mining. Any decisions to open the area for any of these uses is premature at this time.	Under all alternatives, new infrastructure is prohibited in the Pik Sand Dunes; see Stipulation K-13. Sand and gravel mining would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Z.3.48 Visual Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	242	Visual Resources	BLM's review of the cumulative impacts of development on visual resources lacks rigor and important potential sources of impact. Within this section, BLM fails to consider how the State of Alaska's ASTAR program may impact the visual resources of the NPR-A. BLM must elaborate on how proposed roads, mines, and other developments will impact the scenic qualities of the Reserve. Relatedly, BLM also fails to consider how pipelines and fiber optic cable rights- of-way from Utqiagvik to Atqasuk and other regional communities could impact visual resources. And finally, BLM fails to consider how the Utqiagvik winter access trail, and its associated traffic, impacts the visual resources of the region.	The Final IAP/EIS Section 3.4.9, Visual Resources, cumulative impacts has been updated to read "Visual resources in the viewshed beyond the decision area would be influenced by activities on mostly private, state, and other federal agency lands." After "Any RFFAs or projects that would disturb the surface can affect scenic quality. Proposed surface-disturbing projects can change landform, vegetation, color, and adjacent scenery," the following was added: "RFFAs or projects include roads and infrastructure (such as ASTAR, Willow Prospect, and Liberty Prospect), mines, pipelines, ROWs, and trails. These would add artificial and new forms, lines, colors, and textures in undeveloped landscapes. Additionally, they would add sources of commotion and focal points in serene areas absent of unnatural activities or lights."

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	241	Visual Resources	BLM is incorrect in stating that "two oil developments do not necessarily constitute a trend of converting undeveloped landscapes in the NPR-A."1281 In previously published documents, BLM specifically discusses the fact that infrastructure will likely spread-out from the GMT-1 development. For example, in the GMT-1 ROD, BLM states that "the regional mitigation strategy will serve as a roadmap for mitigating impacts from GMT1 and future projects enabled or assisted by the existence of GMT1."1282 Moreover, the proposed Willow project further exemplifies how a significant trend in land conversion is underway within the region. The Willow Master Development Plan EIS is currently being finalized, and current plans are for a new central processing facility and up to seven new satellite pads, all connected by roads and pipelines. There are also over 2.5 million acres of active leases currently on the landscape. These leases have the potential to further expand development within the region and impact the Reserve's visual resources.	The following was deleted from Section 3.4.9, Visual Resources, affected environment: "Although these two oil developments do not necessarily constitute a trend of converting undeveloped landscapes in the NPR-A, it would be more likely that future developments would lend evidence in support of a trend of permanently converting undeveloped landscapes in the NPR-A." The following was added to Section 3.4.9, Visual Resources, direct and indirect impacts: "All things being equal, adding any activity to undeveloped land results in more changes to the scenic quality of the landscape than adding that same activity to developed land."

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	243	Visual Resources	We encourage BLM to expand the protective buffer of three miles to ten miles. Three miles is arbitrary and not a large enough distance to meaningfully manage significantly tall structures or long linear features on a very flat landscape. A photo simulation of the proposed facilities must be part of any plan for approval by the AO.1284 It is impossible to determine the significance of a visual resource impact without having it accurately depicted. This stipulation should not be optional but required. Finally, BLM must articulate how visual resources will be managed in an environment where there are considerable differences in daylight and in how the landscape looks between seasons. The impacts of artificial light during dark periods of time and how structures look depending on the presence and absence of snow/ice cover should also be addressed.	Stipulation K-15 has been updated in the Final IAP/EIS.

Z.3.49 Water Resources

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart, PhD	Greta	–	29302	1	Water Resources	The water resources section should include an assessment of the effectiveness of controls identified required operating procedures. If there have not been studies to assess the effectiveness of the control, it should be noted. It should also be noted at what (if any) physical and temporal scales studies to validate effectiveness of controls were conducted at. It is necessary for readers and decision makers to understand how much information is lacking and what are assumptions are being made.	ADF&G Habitat Division Fish Habitat Permits consistently allow additional ice aggregate use up to 20% of total lake volume without requiring additional recharge monitoring (e.g., FHP FH18-III-0221/Lake MM1703, FHP FH18-III-0224, and FHP FH15-III-0251-Amendment 1). This shift is a result of adaptive management in ADF&G's permitting guidelines after multiple cases of recharge monitoring by ConocoPhillips Alaska, Inc., consistently confirmed lake recharge (e.g., Baker 2011, 2012, 2013, 2014, and 2015). The BLM concurs with the State on this and adjusted ROP B-2 in the Final IAP/EIS to allow up to 20% total lake volume (water plus ice). This decision includes consideration of recharge observations made at lakes L9804, M0016, and R0058 in 2016, as required by EA DOI-BLM-AKF01000-2016-005EA, and at Lake M0705 in 2018, as required by EA DOI-BLM-AK-R000-2018-0001EA.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	37	Water Resources	Page #: 3-61, para 5 Table or figure: Reviewer Name/Agency: ADF&G Comment: Sentence reads: The Colville River traverses the De Long Mountains carrying a large volume of glacial sediment load down to the Arctic Ocean and forms a large delta near Nuiqsut". There is very little contribution of water from the DeLong Mountains, as most of the Colville River catchment comes from the Endicott Mountains further east. Also, there is not much glacial sediment contribution either, as most sediment load comes from high water runoff just after the ice goes out (McClelland et al. 2014). Suggestion if applicable: Refer to: McClelland, J. W., A. Townsend-Small, R. M. Holmes, F. Pan, M. Stieglitz, M. Khosh, and B. J. Peterson (2014), River export of nutrients and organic matter from the North Slope of Alaska to the Beaufort Sea, Water Resour. Res., 50, 1823-1839	The Final IAP/EIS was updated for clarity.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	116	Water Resources	It is crucial that BLM disclose and analyze data on lake recharge following previous water withdrawals in the Reserve, as well as disclosing what data do not yet exist and what aspects of lake-ecosystem recharge and resilience remain uncertain. BLM should also consider how recharge bears on connectivity between overwintering habitat and other waterbodies, and how the timing of recharge corresponds to or affects access of fish to other feeding and spawning habitat.	Water withdrawals would be authorized on a case-by-case basis and regulated by ROPs/BMPs B-1 and B-2, which mitigate impacts by limiting withdrawals from lakes with overwintering fish. The Water Rights portion of Section 3.2.11 includes a study that found that water levels recovered over a summer season, but studies are limited. Numerous observations at lake outlets during spring breakup have confirmed outlet flow and intact connectivity following winter water use, indicating that fish habitat access was not restricted. The Final IAP/EIS includes a recommendation for further monitoring and study of seasonal recharge in Section 3.2.11, Water Resources.
Donahey	Leah	Alaska Wilderness League	29320	118	Water Resources	There is also insufficient analysis of the effectiveness of mitigation measures on water resources. BMP B-2 and ROP B-2 limit water withdrawal from lakes, primarily by setting percentage caps on withdrawals based on the presence or absence of fish species.735 BLM proposes revisions to required operating procedures to reduce the quantity of water that may be withdrawn from unfrozen lakes, as liquid or ice chips. However, it is not clear how BLM arrived at the percentages it proposes, as no studies are cited. BLM also does not demonstrate that the quantities that it proposes to allow to be withdrawn will be recharged under current and future conditions. As local knowledge demonstrates, the current withdrawal rates are resulting the drawn-down lakes	At the programmatic level, the BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific project details such as water withdrawal volume. Specific projects will be analyzed in subsequent NEPA analyses when a project is proposed. Recharge is the process by which lake water removed during the winter is replenished by spring snowmelt. For a period of time, the ADF&G required recharge monitoring when ice aggregate was used in addition to the maximum allowable liquid water. However, recently ADF&G Habitat Division Fish Habitat Permits (as well as ADNR Temporary Water Use Authorizations) consistently allow additional ice aggregate use up to 20 percent of total lake volume without requiring additional recharge

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	118 *(cont.)*	*(see above)*	that do not recharge.736 -------- 735 1 DEIS at 2-12. 736 1 DEIS at 3-70.	monitoring (e.g., FHP[1] FH18-III-0221/Lake MM1703, FHP FH18-III-0224, and FHP FH15-III-0251-Amendment 1). This shift in State water management occurred after multiple years of recharge monitoring (Baker 2002a, 2002b, 2007a, 2007b, 2008, 2009, 2011, 2012, 2013a, 2013b, 2014a, 2014b, 2014c, and 2015). It demonstrated that the increased use of ice aggregate at current levels still protected fish habitat. The BLM concurs with the State water permitting specialists and determined in DOI-BLM-AK-R000-2019-0003-EA that it would allow an increased use of ice aggregate up to 20 percent total lake volume for lakes with only resistant fish species and up to 15 percent total lake volume for lakes with sensitive fish species. The Final IAP/EIS includes a recommendation for further monitoring and study of seasonal recharge in Section 3.2.11, Water Resources.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta		27329	1	Water Resources	Section: Water Resources 3.2.11 Page: 3-63 Sub section: Comment: The following sentence implies that the total volume of water withdrawn in the N-PRA is 528 million gallons: “Approximately 528 million gallons of water were withdrawn from freshwater lakes for ice road and drilling pad construction in the NPR-A during the 2017-2018 drilling season as reported by ConocoPhillips-Alaska Inc. to the BLM Arctic District Office (Arp et al. 2019).” It should be clear that this estimated volume only pertains to what Conoco-Philips withdrew in the northeast N-PRA (approximately 70,000 ha of land area). The authors need to clarify that this estimate is only applicable to what one company uses and that the estimate only accounts for what is used in a portion of the developed areas in the NPR-A.	The IAP/EIS states that the withdrawals are as reported by ConocoPhillips in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta	_	27329	2	Water Resources	Section: Water Resources 3.2.11 Page: 3-63 Sub section: Comment: For the reader and decision makers to understand the full impact of current water withdraw, there should be an estimate of annual water withdrawal across the entire NPR-A - not just the section that is reported on by Conoco-Philips. At the very least the authors need to note what fraction of the developed area the 528 million acres is associated with.	The extent of water permitted for a single season of a winter exploration drilling operation exceeds the actual water needed in order to allow for operational flexibility. This allows the operator in the field to determine the most efficient use of those water resources, depending on current conditions. See Table 3.2 in DOI-BLM-AK-R000-2020-0001EA (CPAI winter exploration for 2019-20) for permitted volumes of water and ice, compared with actual volumes utilized. Unless there is another exploration drilling operation going on during the same year, this accounts for nearly all the water use in the NPR-A for a given winter. The other winter operations (seismic, village cargo hauls, geophysical, plugging, and abandonment) all utilize snowmelt if they require water, or, if needed, they withdraw lake water at a volume less than that requiring a TWUA. Otherwise, ADNR and ADF&G should receive reports from industry about water quantities utilized under TWUAs and FHPs, respectively. Water permits do include the ability to withdraw water but not the quantity withdrawn. Information reported on the water withdrawn by Conoco Phillips was anecdotal and used as an indicator of potential demand for water withdrawals. Clarification was provided in Section 3.2.11, Water Resources, on what fraction of the developed area the Conoco Philips withdrawals are associated with.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Bruno	Jeff	State of Alaska	29317	90	Water Resources	Page #: 3-62, last para Table or figure: Reviewer Name/Agency: ADF&G Comment: Sentence reads: "Several deeper lakes are present in the northern and western areas of the planning area. Teshekpuk Lake is the largest in the area, over 24 miles long". Suggestion if applicable: Add the depth of Teshekpuk Lake as well as its length.	The sentence (last paragraph) was modified in the Final IAP/EIS to add the water depth of Teshekpuk Lake, as water depth is relevant to the discussion of alternatives.
Bruno	Jeff	State of Alaska	29317	16	Water Resources	Page #: 3-72 Table or figure: Reviewer Name/Agency: ADNR Comment: "… and the State of Alaska will enforce pipeline design and construction." Suggestion if applicable: This would be a good place to add that pipelines must be operated in compliance with federal codes such as 49 CFR 192-199, which are overseen by USDOT PHMSA. The text as written is correct, but the addition would point out additional oversight of pipelines.	The Final IAP/EIS includes the suggested compliance with federal code 49 CFR 192-199 under Section 3.2.11, Water Resources.
Bruno	Jeff	State of Alaska	29317	95	Water Resources	Page #: 3-64, para 4 Table or figure: Reviewer Name/Agency: ADF&G Comment: Sentence reads: "Of 34 lakes sampled and studied in the planning area, only six contain notable levels of nitrogen." What does "notable" mean here? Elevated? Sufficient for primary production? Suggestion if applicable: Redefine 'notable' to better reflect what you are trying to say about nitrogen levels	The Final IAP/EIS was updated for clarification to reflect the comment. "Notable," in this context, refers to levels above the detection limit.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	115	Water Resources	A major gap in the draft EIS is BLM's analysis of the impacts of water withdrawals. As the draft EIS notes, the NPR-A is a region that is dominated by shallow lakes, which freeze to the bottom in winter.704 Studies estimate that only 7.5% of the lakes in the Reserve are a source of winter water.705 We note that there is no current estimate of the quantity of water available from these lakes presented in the draft EIS. Without knowing the quantity of water in the lakes, the usage quantities provided for each alternative are out of context. BLM should provide an estimate of the quantity of water in the unfrozen lakes, particularly those that may be used for oil and gas. (See discussion above about related flaws with the RFDS.) ---------- 704 1 DEIS at 3-62. 705 1 DEIS at 3-63.	Tables J-20 through J-23 include lake area and water depth open under each alternative. The water depth classifications are such that frozen and unfrozen volumes can be inferred (lakes deeper than 7 feet are more likely to contain unfrozen water). However, the volume of water in unfrozen lakes that are also non-fish bearing is unknown at this time. The BLM does not have enough information about where infrastructure, such as pipelines, roads, and drill pads, will be located to analyze specific project details such as water volume. Specific projects will be analyzed in subsequent NEPA analyses when a project is proposed.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	117	Water Resources	For each alternative, BLM calculates the water required for the three development scenarios.731 There is considerable variation in water needs between the alternatives, spanning 84% difference between Alternative B and Alternative D.732 However, there is no actual analysis of the impacts of these quantities of water withdrawal and usage. There are only vague statements that water withdrawals result in disruptions of drainage, water levels, and water quality, and reference to mitigation measures that are similarly insufficiently analyzed.733 BLM must provide an actual analysis of the impacts of using the various water quantities needed by each alternative. --------- 731 1 DEIS at 3-73-3-74. 732 1 DEIS at 3-73-3-74. 733 1 DEIS at 3-70.	Water withdrawals would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied. Agencies will assess specific impacts during the permitting process. The Final IAP/EIS includes a recommendation for further study of seasonal recharge in Section 3.2.11, Water Resources.
Monsell	Kristen	Center For Biological Diversity	27356	7	Water Resources	The Draft EIS fails to take a hard look at the direct, indirect, and cumulative impacts of fracking on water quality and wildlife. The Draft EIS fails to analyze the risks of fracking on water quality and wildlife. Fracking fluid (i.e. “recovered” or “flowback” fluids collected into tanks following well stimulation, but before oil and gas production starts) and wastewater (i.e. “produced water” extracted with oil and gas during production)284 from oil and gas operations are a toxic mix of chemicals harmful to human health. A systematic evaluation of 240 chemicals regularly found in fracking fluids and/or wastewater	All hydraulic fracturing activities will comply with Alaska Oil and Gas Conservation Commission (AOGCC) regulation found in 20 AAC 25.283. As of July 2018, there were no reports to AOGCC of contamination of drinking water resulting from fracking operations. Furthermore, any contamination must be reported to the Alaska Department of Environment.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	reported that forty-three percent are associated with reproductive toxicity, forty percent are associated with developmental toxicity, and seventeen percent have been shown to cause both developmental and reproductive harms.285 The study identified 781 other chemicals found in fracking fluid and wastewater which lacked toxicity information and thus could not be evaluated, but which may pose similar risks. Another recent analysis of 111 chemicals routinely found in fracking fluids and wastewater found that 44 percent are known, probable, or possible human carcinogens, and seventeen are linked to increased risk for leukemia and lymphoma, including 1,3-butadiene, cadmium, ethanol, ethylene oxide, and formaldehyde.286 The suite of chemicals used in oil and gas development poses threats to virtually all systems of the body including the sensory, gastrointestinal, immune, reproductive, cardiovascular, endocrine, and nervous systems.287 And scientific research has indicated that 40% of the chemicals used in fracking can harm aquatic animals and other wildlife.288 284 CCST 2015 Vol II at 50. 285 Elliott, Elise G., et al., A systematic evaluation of chemicals in hydraulic-fracturing fluids and wastewater for reproductive and developmental toxicity, 27 Journal of Exposure Science and Environmental Epidemiology 90	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	7 *(cont.)*	*(see above)*	(2016). 286 Elliott, Elise G. et al., Unconventional oil and gas development and risk of childhood leukemia: Assessing the evidence, 576 Science of the Total Environment 138(2017). 287 Yost, Erin et al., Estimating the Potential Toxicity of Chemicals Associated with Hydraulic Fracturing Operations Using Quantitative Structure-Activity Relationship Modeling, 50 Environmental Science and Technology 14 (2016). 288 Colborn, Theo, et al., Natural Gas Operations for a Public Health Perspective, 17Human and Ecological Risk Assessment 1039 (2011).	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	24	Water Resources	Page 2-9 ROP A-5 Refueling and Fuel Storage ROP A-5. BLM must remove the definition of “waterbody” in the Glossary. With the definition of 'waterbody' from the Glossary to now include wetlands (43 CFR 328.4 refers to WOTUS), it could be argued that there would be no fuel storage or fueling allowed within 100' of a wetland, which would effectively prohibit oil and gas operations in most of the NPR-A. This clearly is not BLM's intent, and the language should be revised accordingly. Additionally, ROP A-5 refers to “water body”, which is not clear if that form of the term is intentional. Use of “waterbody” or “water body” may be inconsistent in the EIS.	The definition of waterbody has been added to the glossary.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	70	Water Resources	Page 3-70 Paragraph 1 Freshwater Withdrawals Anecdotal observations quoted in the EIS are not corroborated. Prudhoe Bay operations have not twice caused the Sagavanirktok River to go dry. Decades of monitoring lake recharge measurements around Alpine have not indicated lowering of lake levels due to industry use. Water use is strictly regulated by ADNR and ADF&G.	An updated summary of potential impacts from wastewater disposal summarized from the 2012 BLM EIS is included in the Final IAP/EIS in Section 3.2.11.
Patkotak	Hugh	Olgoonik Corporation	29297	1	Water Resources	Setbacks similar to that on the Utukok River should be considered for the following rivers: o Ivisaruk River; o Kaolak River; o Avalik River; o Kugrua River; o Kungok River.	One-mile setbacks for these rivers are included in Stipulation K-1 for all alternatives.
Henry	Lupita	Point Lay	27301	1	Water Resources	I would like to know where the water rights are for the tribes across the area in this whole NPR-A grouping. Where are the water rights established for the tribes out there that are based in the areas that are affected the most?	The State of Alaska manages water rights in the NPR-A.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	11	Water Resources	Consistent with our scoping comments, we continue to recommend that the EIS include additional information on the potential impacts of wastewater disposal. Potential wastewater discharges are briefly referenced in multiple sections of the document, including discharges from a central processing facility, a seawater treatment plant, and domestic wastewater. We recommend that the Final EIS characterize each of the potential wastewater discharges, including a description of pollutants of concern, and discuss the potential environmental impacts to surface waters, including impacts of an accidental release.	The Final IAP/EIS, Section 3.2.11, was updated for clarity of potential wastewater discharges from central processing plant, seawater treatment plant, and domestic wastewater, their pollutants of concern, and potential impacts on surface waters. Disposal of wastewater is a regulated activity (surface and groundwater disposal) by federal and state agencies. When a specific project is proposed, the proponent will be required to comply with federal and state regulations, to identify discharge locations and pollutants of concern, and to evaluate environmental impacts, including impacts from accidental release.
Nogi	Jill A.	U.S. Environmental Protection Agency	27438	12	Water Resources	We appreciate that the analysis of impacts to fish in Section 3.3.3 includes some information regarding the potential impacts of discharge from a seawater treatment plant. We recommend that additional information on the seawater treatment plant also be provided in Section 3.2.11, so that the Final EIS clearly discloses the full range of potential impacts to water resources from all wastewater discharges.	An updated summary of seawater treatment plant impacts from the 2012 BLM EIS is included in the Final IAP/EIS in Section 3.2.11.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta	_	27329	15	Water Resources	Section: Water Resources Page: 3-66 Sub section: Comment: Please correct the following and take the discussion below into account. Note - please be sure to include all of my graphics with my comments as they are important. The first sentence of the "Direct and Indirect Impacts Section on page 3-66 starts out like this: "The potential impacts on surface water quantity and quality would be similar to those described in BLM 2012 Section 4.5.4." There is no discussion of impacts in this section, but see Section 4.3.4 of BLM 2012 and read my comments on this section: Section 4.3.4 of BLM 2012 states that the present level of withdrawal "have not resulted in measurable water chemistry changes (Hinzman et al 2006) and that "recharge of water withdrawn from lakes occurs during breakup". This statement is misleading. Hinzman et al 2006 (http://ine.uaf.edu/werc/projects/nsl/reports/NSL_Phase1_Final_Report_INEWERC0615.pdf) is not applicable to the maximum water withdrawal allowable and cannot be generalized to most lakes in the NPRA for the following reasons: *"the present level of withdrawals" tested in Hinzman 2006 were so small that in some cases the lake level only decreased by a few centimeters (see table below). The water levels withdrawn were only a small fraction of the permitted withdrawal volume (see table below) *Despite the very low withdrawal volumes, one of the	Section 3.2.11 in the Affected Environment addresses the effects of water withdrawals on recharge and water chemistry. The Final IAP/EIS includes a reference to BLM 2012, Section 4.3.4. The Final IAP/EIS, Section 3.2.11, Direct/Indirect Impacts subsection, includes a recommendation for continued monitoring and study of seasonal recharge.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	15 *(cont.)*	*(see above)*	four "pumped" lakes did NOT fully recharge at snowmelt, suggesting lakes may not fully recharge at snowmelt even when very small volumes of water are withdrawn. *The investigators failed to measure dissolved oxygen in "pumped" lakes/reservoirs because of equipment failures. *Even if the study had been carried out successfully, the selection of study lakes was not appropriate for assessing the impacts of withdrawal on lakes in the rest of the NPRA. The study lakes in Hinzman 2006 were selected for their potential to use as water pumping sources. Data Pulled from Hinzman 2006: Lake: K213 Control Max Depth (m): 2.29 Total Volume (m3): 125,070 Permitted Volume (m3): 12,507 % of total volume permitted for pumping: 10 Pumped 02/03 (m3): 0 Expected change in level (cm): 0 % total volume pumped: 0% Pumped 03/04 (m3): 0 Expected Change in level (cm): 0 % total volume pumped: 0 Pumped 04/05 (m3): 0 Lake: K203 Control Max Depth (m): 1.88 Total Volume (m3): 1,037,361 Permitted Volume (m3): 103,732 % of total volume permitted for pumping: 10 Pumped 02/03 (m3): 0 Expected change in level (cm): 0 % total volume pumped: 0% Pumped 03/04 (m3): 0 Expected Change in level (cm): 0 % total volume pumped: 0% Pumped 04/05 (m3): 0 Lake: *K209P* Max Depth (m): 1.86 Total Volume (m3): 1,272,265 Permitted Volume (m3):	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	15 *(cont.)*	*(see above)*	635,947 % of total volume permitted for pumping: 50 Pumped 02/03 (m3): 26962 Expected change in level (cm): 1.92 % total volume pumped: 2.1% Pumped 03/04 (m3): 43710 Expected Change in level (cm): 3.11 % total volume pumped: 3.44% Pumped 04/05 (m3): Unk Lake: K214P Max Depth (m): 1.75 Total Volume (m3): 2,686,087 Permitted Volume (m3): 143,237 % of total volume permitted for pumping: 5 Pumped 02/03 (m3): 3987 Expected change in level (cm): 0.19 % total volume pumped: 0.1% Pumped 03/04 (m3): 5774 Expected Change in level (cm): 0.88 % total volume pumped: 0.21% Pumped 04/05 (m3): Unk Lake: L9312P Max Depth (m): 4.3 Total Volume (m3): 1,137,000 Permitted Volume (m3): 113,676 % of total volume permitted for pumping: 10 Pumped 02/03 (m3): Expected change in level (cm): % total volume pumped: Pumped 03/04 (m3): Expected Change in level (cm): % total volume pumped: Pumped 04/05 (m3): Unk Lake: L9817P Max Depth (m): 2.7 Total Volume (m3): 386,201 Permitted Volume (m3): 57,987 % of total volume permitted for pumping: 15 Pumped 02/03 (m3): Expected change in level (cm): % total volume pumped: Pumped 03/04 (m3): Expected Change in level (cm): % total volume pumped: Pumped 04/05 (m3): Unk Comment (continued): The water withdrawal section on page 3-77 states the following: "Water withdrawals	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	15 *(cont.)*	*(see above)*	would result in short-term site-specific adverse direct impact." This statement is not warranted based on the information available. Several studies of ice-covered lakes throughout the world have shown gross long-term negative impacts of water withdrawal on invertebrates, vegetation etc. Please remove this statement and replace with something more accurate until the necessary studies to assess the impacts of withdrawal of permitted volumes on entire lake ecosystems have been conducted on representative lakes at the scale necessary and with an appropriate statistical design to allow for adequate detection of biologically significant impacts at a relevant scale.	*(see above)*

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta	–	27329	3	Water Resources	Section: Water Resources 3.2.11 Page: 3-63 to 3-64 Sub section: Comment: The following sentence needs to have a reference: “Lakes that were pumped have a temporary increase in salinity, calcium, magnesium, sodium, potassium, and chloride levels, and an increase in dissolved oxygen (DO).” The authors also need to note what type of lakes these were. Were the study lakes selected because they are deep and have a lot of unfrozen water during the winter. If the study focused on gravel mining pits that should be noted as they have very different morphometry and substrate and oxygen demands when compared to lakes that occur naturally in this area. The authors also need to note if this study had a statistically valid study design or if a statistically valid study is still needed. It should also be noted how much was withdrawn during the study. If only a small fraction of the permitted volume was withdrawn, then the study cannot be used to assess the impacts of withdraw of the volumes that the EIS and the State of Alaska is allowing to be withdrawn.	This study referred to a BLM/COP study of five lake pairs. The lakes varied in depth of between 5 and 12 feet. Thirty-three million gallons of water were pumped from 5 lakes, and each had an adjacent lake with a similar volume; this served as a baseline and was not pumped. The study did not focus on gravel mining. Between 2 and 36 percent of the permitted volume was withdrawn and can be used to assess the volumes currently being pumped. The IAP/EIS does not state that this study reflects withdrawing the permitted volume. A larger sample size would be beneficial but is unavailable. The Final IAP/EIS, Section 3.2.11, Water Resources, includes a recommendation for further monitoring and study of seasonal recharge.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta	_	27329	17	Water Resources	Section: Water Resources Page: Sub section: Comment: The Colville River Special Area has important spring habitats and water resources that must continue to be protected to conserve natural diversity, populations of fish and wildlife, and subsistence opportunities.	All of the action alternatives carry forward the protections (with one exception) outlined in the Colville River Special Area Management Plan and extend them to the entire NPR-A. Section 2.2.1 of the Final IAP/EIS provides more details. Alternative A considers retaining the Colville River Special Area. Special area designations imply the need for additional unique management prescriptions beyond the base stipulations and ROPs that apply through the entire NPR-A. However, designation itself does not impose specific management prescriptions on exploration and development.
Burkart	Greta	_	27329	4	Water Resources	Section: Water Resources 3.2.11 Page: 3-64 Sub section: Comment: When no change was detected (e.g., nitrate) the authors should clarify if the study had enough statistical power and if the chemical analysis had the power to detect a biologically significant change for an oligotrophic system. For example, if the study did not have statistical power to detect change then it should only be mentioned anecdotally, and the authors should note that statistically relevant studies are needed.	Detection limits and sample sizes can be found in the source documents for the referenced studies. Data was included from the best known resources.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Burkart	Greta	–	27329	5	Water Resources	Section: Water Resources 3.2.11 Page: 3-36 Sub section: Comment: When discussing the impacts of climate change discuss the potential for loss of connectivity between waterbodies since this could impact fish migration and would be a cumulative impact as water withdraw can also reduce connectivity between waterbodies.	The discussion under Climate Change in Section 3.2.11, climate change of lake loss due to climate change was modified to include the potential loss of connectivity due to climate change. The BLM is unaware of any studies linking reduced waterbody connectivity associated with water withdrawals. Water withdrawals would be authorized on a case-by-case basis. In cases where such an activity is incompatible in the location in which it is proposed, the proposed action would need to be modified, or the permit could be denied.

Z.3.50 Wetlands and Floodplains

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	83	Wetlands and Floodplains	Page 3-101 Paragraph 1 Comparison of oil and gas activities to impacts not related to oil and gas activities- overland travel The text states: “Though clearly of reduced magnitude, all these activities could have potential adverse direct and indirect effects on wetlands that are similar in nature to those described above for oil and gas development.” This comparison lacks merit as stated. Overland oil and gas activities would occur in the winter, or with summer approved tundra vehicles with strict BMPs in place to avoid tundra damage. The summer subsistence activities are not regulated like oil and gas activities; therefore the vehicles used may not be tundra approved, and will cause more damage than oil and gas activities. ConocoPhillips requests BLM remove or restate this comparison to differentiate the damage that could be cause by overland travel.	The Final IAP/EIS Section 3.3.2 was updated to evaluate overland travel for non-oil and gas activities separately and to note that non-oil and gas activities are more likely to occur during summer, with a greater potential for higher impacts.
Schell	John	ConocoPhillips Alaska	29272	84	Wetlands and Floodplains	Page 3-104 Paragraph 2 Scenario impact comparison to the high/medium/low development scenarios ConocoPhillips suggests the FEIS include the actual percentage of the development scenario area that would be impacted by Alternative B. This would provide clearer reference to the actual anticipated footprint with respect to the overall size and amount of wetlands in the area.	The reference to Appendix B, Section B.9, Table B-2 has been updated. The differences in total footprints among development scenarios is best represented by comparison of acreage estimates. When total acres are presented as a percentage of the total area open for leasing in each scenario, the relative impacts are negligible. The text was modified to clarify that distinction, and percentages were not added to the narrative.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	86	Wetlands and Floodplains	Page 3-106 Paragraph 1 Scenario impact comparison to the high/medium/low development scenarios ConocoPhillips suggests the FEIS include the actual percentage of the development scenario area that would be impacted by Alternative D. This would provide clearer reference to the actual anticipated footprint with respect to the overall size and amount of wetlands in the area.	The reference to Appendix B, Section B.9, Table B-2 has been updated. The differences in total footprints among development scenarios is best represented by comparison of acreage estimates. When total acres are presented as a percentage of the total area open for leasing in each scenario, the relative impacts are negligible. The text was modified to clarify that distinction, and percentages were not added to the narrative.
Schell	John	ConocoPhillips Alaska	29272	78	Wetlands and Floodplains	Page 3-100 Paragraph 2 Local surface disturbance reference to planning area size Consider including the overall percentage of each of the expected impact acres within the size of the scenario zones as a means for the reader to evaluate the localized impacts relative to the overall size and number of wetlands in the area. NOTE: Reference to "Appendix B, Table B-9 seems in error, as there is no "Table B-9" in Appendix B.	The reference to Appendix B, Section B.9, Table B-2 was corrected. The differences in total footprints among development scenarios is best represented by comparison of acreage estimates. When total acres are presented as a percentage of the total area open for leasing in each scenario, the relative impacts are negligible. The text was modified to clarify that distinction< and percentages were not added to the narrative
Schell	John	ConocoPhillips Alaska	29272	85	Wetlands and Floodplains	Page 3-104 Paragraph 5 Scenario impact comparison to the high/medium/low development scenarios ConocoPhillips suggests the FEIS include the actual percentage of the development scenario area that would be impacted by Alternative C. This would provide clearer reference to the actual anticipated footprint with respect to the overall size and amount of wetlands in the area.	The reference to Appendix B, Section B.9, Table B-2 has been updated. The differences in total footprints among development scenarios is best represented by comparison of acreage estimates. When total acres are presented as a percentage of the total area open for leasing in each scenario, the relative impacts are negligible. The text was modified to clarify that distinction, and percentages were not added to the narrative.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	121	Wetlands and Floodplains	BLM fails to analyze adequately the full suite of potential direct, indirect, and cumulative impacts to wetlands and floodplains. The majority of the Reserve consists of wetlands or open water.738 As BLM acknowledges, oil and gas development activities under the IAP could have significant negative effects on vast areas of tundra wetlands.739 Yet it is not clear from BLM's analysis what the total potential impact may be to wetland resources, and how the impacts might vary across the region from development scenarios under each alternative. --------- 738 1 DEIS at 3-93 739 1 DEIS at 3-96 to 3-101	This IAP/EIS contains adequate, high quality, and accurate scientific analysis and includes all relevant pee-reviewed scientific literature.
Kenning	Erik	ASRC	29299	29	Wetlands and Floodplains	ASRC supports limited river setbacks only in areas of high subsistence usage as identified by the North Slope communities. Rivers and river segments used in the final K-1: “River Setbacks” should be determined in direct consultation with the nearest community and private Native land owner. These rivers are in their backyards and they have they have the best knowledge of where any protections should or should not be placed. The NPRA Working Group would also be a valuable source of input in the stipulations. Once again, river setbacks do not exist on nearby or adjacent Native lands so this creates direct conflict with adjacent land owners. We see little value in arbitrarily excluding areas based on buffer distance that may or may not have any value.	Stipulation K-1 has been updated in the Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	74	Wetlands and Floodplains	Page 3-96 Paragraph 4 Provide basis for comparison of foreseeable project footprints to the size of each of the scenario areas. This would provide for more meaningful comparison of scenarios relative to the overall size and abundance of wetlands habitats. The text states: “The expected total project footprints under the theoretical development scenarios for new oil and gas development are 919 acres, 1,360 acres, and 2,385 acres under the low, medium, and high development scenarios, respectively, as described in Section B.8, Appendix B.” It would be helpful to include the Percentage of each of these impact scenarios relative to the areas as a means for the reader to evaluate the localized impacts relative to the overall size and number of wetlands in the area.	The differences in total footprints among development scenarios are best represented by comparison of acreage estimates. When total acres are presented as a percentage of the total area open for leasing in each scenario, the relative impacts are negligible. The text was modified to clarify that distinction, and percentages were not added to the narrative.
Schell	John	ConocoPhillips Alaska	29272	75	Wetlands and Floodplains	Page 3-98 Paragraph 4 Refers to old seismic practices This repeats the similar information from page 3-85, which is incorrect. It also states camps are pulled by 'tracked trailers', which appear to be an error.	The Final IAP/EIS has been updated to encompass modern seismic techniques.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	77	Wetlands and Floodplains	3-100 Paragraph 1 Gravel mining impacts - Reclamation While current reclamation practices do result in a “conversion” from a palustrine wetland to a palustrine open water system, this type of reclamation has become the preferred agency approved method due to the lack of success in re-creating palustrine wetlands as described in the DEIS. While this “conversion” may be viewed as an adverse effect, the resulting lake or pond is beneficial as a new bird habitat and potential water source. The final EIS should include discussion on the countervailing benefits of the lakes becoming future water sources, and their potential to provide high quality water bird habitats. NOTE: Reference to “Appendix B, Table B-9 seems in error, as there is no “Table B-9” in Appendix B.	The Final IAP/EIS Section 3.3.2 was updated to indicate the specific functions that may be re-created after an excavated pit is rehabilitated and filled with water to a stable condition. Additional information was included explaining why the conversion from tundra to open water type is, on balance, a loss of function and typically is considered adverse, even though it is commonly used for compensatory mitigation calculations. The text was updated text to refer to Appendix B, Section B-9, Table B-2.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	79	Wetlands and Floodplains	Page 3-100 Paragraph 3 Indirect impacts - Fugitive dust The DEIS overstates the impact of fugitive dust. The analysis uses 1980s and early 2000 Dalton Highway studies to support the notion that impacts from indirect dust shadow extend to 100 meters from road developments. The reports cited clearly state that dust impacts decrease logarithmically out to 100 meters and beyond. This corroborates the Walker and Everett (1987) findings that fugitive dust impacts past 30 meters are difficult to measure. More importantly, the study relies upon measuring dust accumulation along the Dalton Highway where traffic volumes, speed limits, and vehicle size are much greater than traffic expected in the Planning Area. This approach in the DEIS seems unreasonable in quantifying indirect dust shadow impacts expected and should be revised. A recent dust deposition study (Kuukpik Corporation, 2016) was completed by the Kuukpik Corporation (Kuukpik) as a special condition of their Corps Permit (POA 2013-68) to construct the Nuiqsut Spur Road and storage pad (Kuukpik pad). The Nuiqsut Spur Road is a 24 feet wide, 6 miles long private road with a posted speed limit of 25 mph, and connects Nuiqsut to the Alpine well site CD5 Access Road. The Kuukpik Pad is a 10-acre gravel storage pad at the intersection of the Nuiqsut Spur Road and the CD5 Access Road. This road and pad are appropriate analogs for addressing fugitive dust within the Planning	The Final IAP/EIS has been updated to include reference to The Kuukpik Corporation 2016 study. Estimates of resulting dust shadow were revised, and it was clarified that the estimates are conservative. Analysis predicting variation in the width of the dust shadow due to road width, speed limit, topography, and prevailing winds was not included in this Final IAP/EIS.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
(see above)	*(see above)*	*(see above)*	*(see above)*	79 *(cont.)*	*(see above)*	Area than the Dalton Highway (i.e., Walker and Everett, 1987). (continued below).	*(see above)*
Schell	John	ConocoPhillips Alaska	29272	87	Wetlands and Floodplains	Page 3-106 Geographic area considered for cumulative wetlands impacts The DEIS states the geographic area of cumulative impact comparison includes the entire Arctic Coastal Plain and Brooks Range Foothills, including those near Prudhoe Bay and Pt. Thomson. This seems to be an overestimation of cumulative impacts for the currently proposed Planning Area, especially when considering the concentration of relatively unrestricted past and present impacts in those areas east of the Colville River. Impacts associated with areas outside the planning area should not be included in the DEIS cumulative impacts analysis, especially since they are associated with a completely different watershed and are not associated with the Planning Area.	The Final IAP/EIS Section 3.3.2 was updated to clarify justification of the geographic area for cumulative impacts. The cumulative impacts area will usually be larger than the proposed impact zone. This is because it includes the broader range of the specific resource and a variety of past, present, and reasonably future projects that fall outside the planning area boundaries.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	76	Wetlands and Floodplains	Page 3-99 Paragraph 1 Referencing 1980's ANWR Impacts from exploration activities to modern winter methods in the planning area The text states: "In contrast, in the ANWR, 15 percent of trails made in the mid-1980s were still visible from the air after 14 years. Seismic vehicle traffic in the ANWR resulted in moderate to severe impacts in some wetland types, especially the Freshwater Emergent types corresponding to the Tussock Shrub Tundra and Dwarf Shrub vegetation types; in some cases recovery was limited even after 18-25 years (Jorgenson et al. 2010)" While this may be true for 1980's ANWR activities, the modern exploration practices that use snow packing prior to ice road development have proven to mitigate tundra damage. The comparison to 1980's practices does not provide a suitable reference to modern practices. The previous paragraph on page 3-98 notes that modern practices result in negligible impacts. BLM should reconsider the approach to analyses of impact from seismic survey; it seems all instances of impact analysis in the DEIS refer to studies or observations of seismic surveys conducted in the 1980's in ANWR or cite "local knowledge" as actual impact. Seismic survey technology and practices have greatly improved since the 1980's and this information should be reflected in the EIS.	The Final IAP/EIS has been updated to encompass modern seismic techniques.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	81	Wetlands and Floodplains	Page 3-100 Paragraph 3 Indirect impacts - Fugitive dust BLM should revise the anticipated dust shadow to 50-feet from the edge of gravel placement along roads, and account for the fact that even a reduced dust shadow will be further mitigated by operator's best management practices. A change to the dust shadow analysis could have impacts elsewhere in the DEIS. This impact should be reconsidered with a more reasonable and accurate assessment of the potential dust shadow.	The Final IAP/EIS Section 3.3.2 was updated to include a discussion of results from Kuukpik 2016 and from Walker and Everett 1987. The results in Kuukpik 2016 are preliminary (from the 1st year of a planned 3-year study) and are for the Nuiqsut Spur road only. The dust shadow along the spur road is likely to increase in width over time, and thus a wider estimate is advisable, based on previous longer term studies, such as that by Walker and Everett (1987).
Schell	John	ConocoPhillips Alaska	29272	82	Wetlands and Floodplains	Page 3-100 Paragraph 4 VSM impacts The text states: “Construction of aboveground oil pipelines results in the direct loss of wetlands due to excavation for vertical support members and placement of the resulting spoil on the adjacent tundra.” BLM must revise the language to state that the VSMs will be installed in the winter, and the side cast spoils are only temporarily placed on the ice/snow and are returned to the excavated hole as slurry backfill and VSM bedding. The tundra may only receive negligible impacts at best by the temporarily side cast spoils if all the spoils could not be recovered during backfill.	The Final IAP/EIS Section 3.3.2 was updated to indicate that side-cast spoils do not contribute to the overall fill acreage.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Schell	John	ConocoPhillips Alaska	29272	73	Wetlands and Floodplains	Page 3-94 Paragraph 2 Definition of Lentic habitat The text states that Lentic waters (Lakes) are less than 20-acres in size and ponds are greater than 20-acres. The FGDC 2013 report cited describes the opposite; a lake environment is greater than 20-acres and a Palustrine (pond) environment is less than 20-acres. For clarity, BLM should revise the description accordingly.	The Final IAP/EIS Section 3.3.2 has been updated to indicate that lakes are >20 acres and ponds are <20 acres, per the comment.
Schell	John	ConocoPhillips Alaska	29272	80	Wetlands and Floodplains	Page 3-100 Paragraph 3 Indirect impacts - Fugitive dust (continued from above) The Kuukpik study found that insoluble dust travels up to 50 feet away from the east side of the spur road, 50 feet away from the storage pad and 25 feet away from the west side of the spur road. The Corps concurred with Kuukpik's findings and submitted a Permit Modification to Kuukpik on June 17, 2017, finding that no additional dust suppression was necessary because dust did not extend 200 feet from the fill edges. BLM should revise the anticipated dust shadow to 50-feet from the edge of gravel placement along roads, and account for the fact that even a reduced dust shadow will be further mitigated by operator's best management practices. A change to the dust shadow analysis could have impacts elsewhere in the DEIS. This impact should be reconsidered with a more reasonable and accurate assessment of the potential dust shadow.	The Final IAP/EIS has been updated to clarify that the dust width of the dust shadow varies with the size of the road, traffic volume and speed, local topography, and prevailing winds. The Kuukpik 2016 study was based on one season of measurement during the 1st year of operations. The IAP/EIS uses a wider dust shadow as a conservative estimate that will account for a variety of potential road developments and use over multiple years.

Z.3.51 Wild and Scenic Rivers

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	238	Wild and Scenic Rivers	BLM declined to complete a WSR eligibility evaluation and a subsequent suitability study necessary to inform consideration of a potential congressional designation.1223 Instead, BLM tiered to the previous 2013 IAP process, finding no substantial changes since that analysis.1224 This 2013 information is likely outdated and available science and circumstances in the physical environment have changed since these studies.1225 Therefore, BLM should complete an eligibility evaluation and suitability studies, and consider the recommendation of all suitable rivers to the Wild and Scenic River System. This baseline information will inform the analysis of any impacts of the alternatives on the values of each eligible and suitable river. In addition, the agency should update its range of alternatives and RMPs to mitigate the impacts of any oil and gas development and related activities on the ORVs for the all rivers in the Reserve and ensure their proper management to allow for future inclusion in the System.	The BLM determined that since the 2013 ROD was adopted, there have been no significant changes to the factors addressing eligibility or suitability of the twelve rivers recommended for WSR designation under Alternative B. See Section 2.3.1 of the Final IAP/EIS. These rivers would be managed in a manner that maintains their suitability for inclusion in the WSR system.

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Taylor	Audrey	Boreal Partners in Flight	29234	5	Wild and Scenic Rivers	3) The three rivers associated with the balsam poplar stands in the NPR-A should be considered for "Wild and Scenic" designation, specifically the Utukok, Etivluk and Kigalik rivers8 (Table 1). This designation would augment protections year-round, not only for the rivers themselves, but also the connected waterways, water watersheds, and specialized locations where balsam poplar stands occur.8,9	The Final IAP/EIS has been updated to state "Additional vegetation types are present, but were not mapped due to their small total area. For example, stands of balsam poplar (*Populus balsamifera*) occur along the Etivluk, Kigalik, and Utukok Rivers (Breen 2014)."
Fisher	Kevin	North Slope Borough	29290	16	Wild and Scenic Rivers	Wild and Scenic Rivers The Borough does not support recommending the designation of any Rivers under the Wild and Scenic Rivers program at this time, and requests that Alternative B not be selected. Such designations could involve limiting subsistence access to the rivers.	Pursuant to Section 811 of ANILCA, subsistence access is still available for rivers if they were to be designated as Wild and Scenic.

Z.3.52 Wilderness Characteristics

Last Name	First Name	Organization Name	Letter #	Comment Number	Comment Code Name	Comment Text	Response Text
Donahey	Leah	Alaska Wilderness League	29320	240	Wilderness Characteristics	As BLM acknowledged in 2012, the Reserve "is one of the largest remaining wilderness resource areas in the country."1260 The draft IAP and EIS incorporates the 2012 final EIS/IAP's discussion of the wilderness characteristics of the Reserve. 1261 While BLM incorporates the prior documents, we encourage BLM to include a summary discussion in this document, so that the reader understands the exceptional wilderness characteristics of the Reserve without reference to other sources.	CEQ NEPA regulation 40 CFR 1502.21 encourages incorporation by reference. Consistent with CEQ regulation 40 CFR 1502.7, Secretarial Order 3355 directs the BLM to streamline its NEPA process, including time and page limitations for NEPA documents.

Z.4 REFERENCES

Baker (Michael Baker, Jr., Inc.). 2011. Alpine ice road recharge studies. Report 123593-MBJ-RPT-001. Prepared for ConocoPhillips, Alaska, Inc., Anchorage, Alaska.

Baker (Michael Baker, Jr., Inc.). 2012. Final Alpine area lakes recharge studies. Report 127660-MBJ-RPT-001). Prepared for ConocoPhillips, Alaska, Inc., Anchorage, Alaska.

Baker (Michael Baker, Jr., Inc.). 2013. Cassin lakes recharge study. Report 134783-MBJ-RPT-001. Prepared for ConocoPhillips, Alaska, Inc., Anchorage, Alaska.

Baker (Michael Baker International). 2014. Exploration lakes recharge studies. Report 141011-MBJ-RPT-001. Prepared for ConocoPhillips, Alaska, Inc., Anchorage, Alaska.

Baker (Michael Baker International). 2015. Alpine area lakes recharge studies. Report 139279-MBJ-RPT-001. Prepared for ConocoPhillips, Alaska, Inc., Anchorage, Alaska.